

**To:** Blackman, Jerome[Blackman.Jerome@epa.gov]  
**From:** Douglas Jordan  
**Sent:** Thur 7/30/2015 6:44:47 PM  
**Subject:** RE: CALL FOR ABSTRACTS DEADLINE REMINDER- 2015 Natural Gas STAR Implementation Workshop

You know us, we can make pretty much anything work.

Also, if you need us to do more than one presentation, I can probably get Fiji to do one and me another (that way its not just the same SWN face up there). And I am sure Mark Boling would be glad to make some high level introduction, thanking EPA for efforts (and in a genuine way), etc. if that helps kick things off.

Just let us know how we can help.

**From:** Blackman, Jerome [mailto:Blackman.Jerome@epa.gov]  
**Sent:** Thursday, July 30, 2015 11:44 AM  
**To:** Douglas Jordan  
**Cc:** Bylin, Carey; Waltzer, Suzanne; Bartos, Scott  
**Subject:** RE: CALL FOR ABSTRACTS DEADLINE REMINDER- 2015 Natural Gas STAR Implementation Workshop

Thanks so much, Doug. I will share your presentation ideas with the team and get back to you with our preference. I think there are all great suggestions.

Cheers,

Jerome

**From:** Douglas Jordan [mailto:Douglas\_Jordan@SWN.COM]  
**Sent:** Thursday, July 30, 2015 11:48 AM  
**To:** Blackman, Jerome  
**Subject:** RE: CALL FOR ABSTRACTS DEADLINE REMINDER- 2015 Natural Gas STAR Implementation Workshop

Jerome, below are the two “presentations” that I thought may be of interest for the NG STAR Implementation Workshop. The SWN Methane Reduction Initiatives-Update would essentially be a summary of the topics listed but not going into great detail (more the highlights). And ONE Future would be a more detailed presentation/overview of the program. Of course, with the exception of the “new technologies” topic, I could go into more detail on the Methane Measurement Studies and /or Methane Detection as “stand alone” presentations. What do you think

- SWN Methane Reduction Initiatives - Update

- o New Technologies (well not really new, but kind of new)

- Fuel Cell Project

- Dual Fuel Drill Rigs

- o Methane Measurement Studies

- UT Production Sector

- CSU Gathering and Processing Sector

- o Methane Detection

- SWN SMART LDAR

- EDF Methane Detector Challenge

- DOE ARP Ae MONITOR Challenge

- o ONE Future - Introduction

- ONE Future – More Detail

**From:** Blackman, Jerome [<mailto:Blackman.Jerome@epa.gov>]  
**Sent:** Tuesday, July 28, 2015 5:37 AM  
**To:** Douglas Jordan  
**Subject:** Re: CALL FOR ABSTRACTS DEADLINE REMINDER- 2015 Natural Gas STAR Implementation Workshop

Excellent!

Sent from my iPhone

On Jul 27, 2015, at 3:39 PM, Douglas Jordan <[Douglas\\_Jordan@SWN.COM](mailto:Douglas_Jordan@SWN.COM)> wrote:

You know we don't shy away from such things at SWN! I will get something to you this week.

Doug Jordan

SWN - V+ Resource Development

Director, Corporate Environmental Program's

281-610-4291

On Jul 27, 2015, at 10:56 AM, Blackman, Jerome <[Blackman.Jerome@epa.gov](mailto:Blackman.Jerome@epa.gov)> wrote:

Well, what about highlighting the work SWN is doing in your Pennsylvania operations to control/limit methane emissions? Is that too hot to touch given all the regs?

JB

Sent from my iPhone

On Jul 25, 2015, at 2:59 PM, Douglas Jordan <[Douglas\\_Jordan@SWN.COM](mailto:Douglas_Jordan@SWN.COM)> wrote:

So what would you like me to create an abstract on?

Doug Jordan

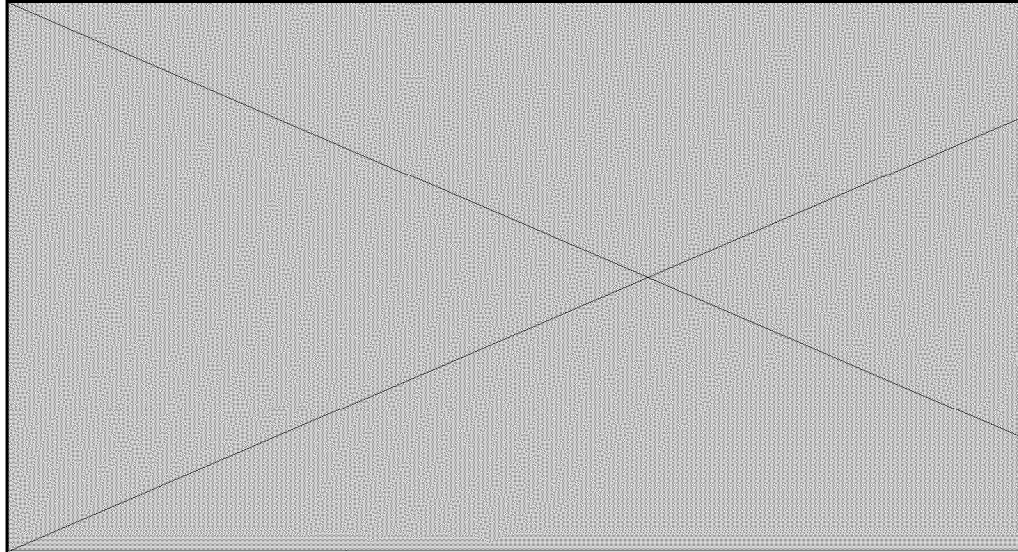
SWN - V+ Resource Development

Director, Corporate Environmental Program's

281-610-4291

Begin forwarded message:

**From:** EPA Natural Gas STAR Team <[meetings@erg.com](mailto:meetings@erg.com)>  
**Date:** July 23, 2015 at 2:00:00 PM GMT+2  
**To:** <[Doug\\_Jordan@SWN.COM](mailto:Doug_Jordan@SWN.COM)>  
**Subject:** **CALL FOR ABSTRACTS DEADLINE REMINDER- 2015  
Natural Gas STAR Implementation Workshop**



**REGISTRATION  
and  
CALL FOR ABSTRACTS**

2015 Natural Gas STAR Annual Implementation Workshop

Sheraton Pittsburgh Hotel at Station Square  
Pittsburgh, PA USA  
November 16-18, 2015

Mark your calendars! We are pleased to announce that the 2015 Natural Gas STAR Annual Implementation Workshop will be held in Pittsburgh, PA on November 16-18. This year's workshop comes at a time of heightened interest in methane emissions, and is a forum for sharing solutions and cutting edge technologies and practices to reduce emissions. The workshop will feature domestic and international Partner Company speakers sharing their innovative approaches to reducing methane emissions. Agenda topics will cover a range of issues such as:

- Advanced Technologies for Methane Emissions Detection \_\_\_\_\_

and Quantification

- Making the Business Case for Focused Methane Management
- Capture and Use of Methane for Onsite Power Generation

More than 150 participants gathered at the last implementation workshop to network, share information and celebrate the achievements of Natural Gas STAR Partners!

**CALL FOR TECHNICAL PRESENTATIONS -  
DEADLINE TO SUBMIT IS JULY 31**

If you are interested in presenting at the Annual Implementation Workshop please submit a one page abstract for consideration. Submission details and deadlines can be found on the [Call for Abstracts](#).

**Please Note:** Presentations should be relevant to methane emissions in the oil and natural gas industry and focus on the deployment of commercially proven, verified technologies and practices. Selected presenters will be responsible for their own travel and accommodation expenses. *Selection does not constitute an endorsement by EPA of any product or company.*

**REGISTRATION INFORMATION**

The meals fee (optional) for this workshop will be \$225. Registration is now available on the [Gas STAR web site](#).

**HOTEL AND ACCOMMODATIONS**

The workshop will be held at the Sheraton Pittsburgh Hotel at Station Square. Overnight accommodations are available for the nights of November 15-18. To make reservations, call the Sheraton at 1-800-325-3535 and reference the EPA Natural Gas STAR Workshop to receive the special conference rate of \$128 single/double plus 14% state and local tax. (**Please Note:** Our group rate is the current government per diem and is subject to change. The annual per diem rates will reset on October 1, 2015 and they could vary from our current rate.) Our group rate will only be available until October 15, 2015. After this date, all reservations will be on a space and rate available basis. You can also [reserve your hotel room online](#).

## EXHIBITOR OPPORTUNITIES

Inquiries from potential workshop exhibitors are welcome. The Annual Implementation Workshop is the perfect, high-visibility opportunity to network with your colleagues, clients, and other interested stakeholders in the natural gas industry. For more information on exhibiting, please contact [Erin Pittorino](#) at ERG.

If you have any logistical questions please contact [ERG](#), the contractors organizing this year's meeting. For other questions about the workshop, please contact [Jerome Blackman](#) at EPA.

## SPREAD THE WORD!

Help us spread the news about the workshop by forwarding this e-mail to colleagues who may be interested in attending.

We look forward to seeing you in Pittsburgh!

Sincerely,

The Natural Gas STAR Team

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**To:** Blackman, Jerome[Blackman.Jerome@epa.gov]  
**From:** Douglas Jordan  
**Sent:** Thur 7/30/2015 3:48:18 PM  
**Subject:** RE: CALL FOR ABSTRACTS DEADLINE REMINDER- 2015 Natural Gas STAR Implementation Workshop

Jerome, below are the two “presentations” that I thought may be of interest for the NG STAR Implementation Workshop. The SWN Methane Reduction Initiatives-Update would essentially be a summary of the topics listed but not going into great detail (more the highlights). And ONE Future would be a more detailed presentation/overview of the program. Of course, with the exception of the “new technologies” topic, I could go into more detail on the Methane Measurement Studies and /or Methane Detection as “stand alone” presentations. What do you think

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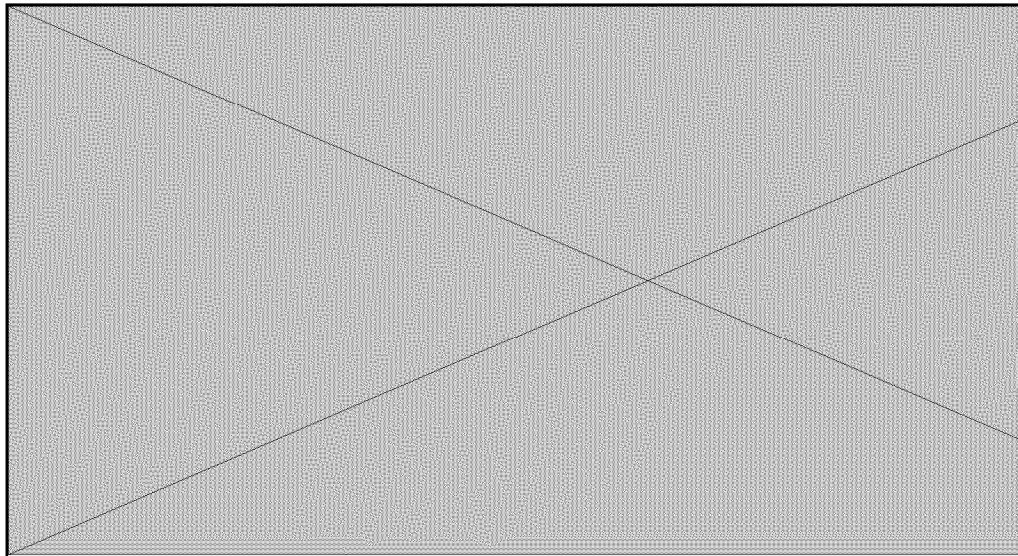
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**To:** Gunning, Paul[Gunning.Paul@epa.gov]; Bylin, Carey[Bylin.Carey@epa.gov]  
**From:** Fiji George  
**Sent:** Wed 11/25/2015 3:52:05 PM  
**Subject:** RE: MC-ONE-Future-Supp-Tech Info-11-24-15\_draft(fcg).docx

Paul and Carey,

The main issue we have is how the data is reported. What you have outlined in the Supplemental Technical document is apt for a BMP option. ONE Future's design is fundamentally different as it is an emissions intensity design that focuses on "facility" reporting and meeting goals at a corporate level.

An example, at a basin level we would sum up our emissions from all affected facilities using the table A. So you will get all the detailed computations (for example: for AGR and pneumatics you will get the green highlights). However, it is a burden for ONE Future members that are reporting over 20 sources at each site (well pad) and as an example, if it is the Fayetteville- we have over 4000 wells – it is impossible for us to add or document the reductions at each component/emission sources.

With respect to ONE Future companies, we may reduce emissions at certain well pads and not at others (fundamental difference with BMP) and we need the flexibility to average our emissions from all well pads at all facilities within our corporation. And for ONE Future companies it is a tremendous burden since we are reporting emissions inventories from all sources at all facilities- not just a handful of BMP specific sources. Therefore, I agree the data element you have requested is important for BMPs but not for One Future.

<b>Emission Source</b>	<b>Data Elements Collected via Facility-Level Reporting</b>	<b>GHGRI</b>
Acid Gas Removal (AGR) vents	Actual count of AGR units	X
Voluntary action to reduce methane emissions during the reporting year <sup>11</sup>	Annual CH <sub>4</sub> Emissions (mt CH <sub>4</sub> ) Mitigation actions implemented to reduce methane emissions (list) Emission reductions from voluntary action (mt CH <sub>4</sub> )	

Emission Source	Data Elements Collected via Facility-Level Reporting	GHGRP
Natural Gas Pneumatic Device (Controller) Vents (all sectors except processing)  Voluntary action to reduce methane emissions during the reporting year <sup>130</sup>	Actual count of high-bleed pneumatic controllers <sup>125</sup>	X
	Annual CH <sub>4</sub> emissions from high-bleed pneumatic controllers (mt CH <sub>4</sub> )	X
	Actual count of intermittent-bleed pneumatic controllers	X
	Annual CH <sub>4</sub> emissions from intermittent-bleed pneumatic controllers (mt CH <sub>4</sub> )	X
	Actual count of low-bleed pneumatic controllers <sup>126</sup>	X
	Annual CH <sub>4</sub> emissions from low-bleed pneumatic controllers (mt CH <sub>4</sub> )	X
	Number of high-bleed controllers converted to low-bleed	
	Number of high-bleed controllers converted to zero emitting or removed from service	
	Number of intermittent-bleed pneumatic controllers converted to zero emitting or removed from service	
	Number of low bleed pneumatic controllers converted to zero emitting or removed from service	
	Emission reductions from voluntary action (mt CH <sub>4</sub> )	

Table A

CH <sub>4</sub> Emission Source	GHGRP Subpart	CH <sub>4</sub> Estimation Method
Vented Emission Sources		
Gas well venting during completions and workovers without hydraulic fracturing	989.233(h)	Default emission factor
Gas well venting during completions and workovers with hydraulic fracturing	98.233(g)	Measured flowback gas volume vented or flared

Well venting for liquids unloading	98.233(f)	Engineering estimation or direct measurement
Pneumatic Controllers	98.233(a)	Default emission factors based on type of pneumatic controller
Pneumatic Pumps	98.233(c)	Default emission factor
Dehydrator Vents	98.233(e)	Dehydrators >0.4 MMscf use modeling. Dehydrators <0.4 MMscf use default emission factor. Desiccant dehydrators use an engineering equation.
Kimray Vents		
Storage Tanks	98.233(j)	For throughput > 10 barrels/day: Process simulator or engineering estimate based on liquid composition. For throughput <10 barrels/day: default emission factor.
Separator liquid dump valves	98.233(j)	Based on tank emissions and time the dump valve is not closing properly
Well Testing Venting and Flaring	98.233(l)	Engineering estimate based on gas to oil ratio or gas production rate
Associated Gas Venting and Flaring	89.233(m)	Engineering estimate based on gas to oil ratio
AGR Vents	98.233(d)	No CH <sub>4</sub> emissions are required to be reported for AGR vents
Fugitive Emission Sources		
Reciprocating Compressors – Fugitive	98.233(p)	Default emission factor
Centrifugal Compressors - Fugitive	98.233(o)	Default emission factor
Well Site - Fugitive	98.233(q)	Default component counts and default emission factors
Combustion Emissions Sources		
External combustion sources	98.233(z)	Fuel combustion rates and gas composition
> 5 MMBTU/hr		
Internal combustion sources	98.233(z)	Fuel combustion rates and gas composition
>1 MMBTU/hr		
Flare Stacks	98.233(n)	Flow measuring device on the flare or use of engineering calculations based on process knowledge, company records, and best available data

CH <sub>4</sub> Emission Source	Recommended CH <sub>4</sub> Emission Factor	Units	Data Source
Well Drilling	2,698	scfy CH <sub>4</sub> /well	GHGI 2012
Vessel Blowdowns	82.6	scfy CH <sub>4</sub> /vessel	GHGI 2012
Pipeline Blowdowns	327.1	scfy CH <sub>4</sub> /mile	GHGI 2012
Compressor Blowdowns	3,967	scfy CH <sub>4</sub> /compressor	GHGI 2012
Compressor Starts	8,149	scfy CH <sub>4</sub> /compressor	GHGI 2012
Pressure Relief Valves	36.1	scfy CH <sub>4</sub> /PRV	GHGI 2012
Mishaps	708.1	scfy CH <sub>4</sub> /mile	GHGI 2012

***Fiji George***

***Southwestern Energy***

**From:** Fiji George

**Sent:** Wednesday, November 25, 2015 8:44 AM

**To:** Gunning.Paul@epa.gov; Bylin, Carey

**Subject:** MC-ONE-Future-Supp-Tech Info-11-24-15\_draft(fcg).docx

Comments..

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**To:** Gunning, Paul[Gunning.Paul@epa.gov]; Bylin, Carey[Bylin.Carey@epa.gov]  
**From:** Fiji George  
**Sent:** Wed 11/25/2015 2:43:57 PM  
**Subject:** MC-ONE-Future-Supp-Tech Info-11-24-15\_draft(fcg).docx  
MC-ONE-Future-Supp-Tech Info-11-24-15\_draft(fcg).docx

## Comments..

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**To:** McCabe, Janet[McCabe.Janet@epa.gov]; Goffman, Joseph[Goffman.Joseph@epa.gov]; Gunning, Paul[Gunning.Paul@epa.gov]; Bylin, Carey[Bylin.Carey@epa.gov]; methanechallenge@tetrattech.com[methanechallenge@tetrattech.com]  
**Cc:** Ifuller@ipaa.org[Ifuller@ipaa.org]; ebowman@anga.us[ebowman@anga.us]; Jason Smith (jsmith@anga.us)[jsmith@anga.us]; Erik Milito[militoe@api.org]; Howard Feldman[Feldman@api.org]; John Wagner[Wagner@api.org]; Kyle Isakower[Isakowerk@api.org]  
**From:** Matthew Todd  
**Sent:** Fri 11/20/2015 10:07:13 PM  
**Subject:** Comments on the EPA Methane Challenge program  
[2015 11 20 Comments for Methane Challenge - Partnership Agreement.pdf](#)

Dear Ms. McCabe:

The American Petroleum Institute (API), America's Natural Gas Alliance (ANGA), and the Independent Petroleum Association of America (IPAA) appreciate this opportunity to provide our attached comments to EPA regarding the Natural Gas STAR Methane Challenge program's draft partnership agreement.

Thank you for this opportunity and your consideration.

Matthew Todd, on behalf of Howard Feldman

## Howard J. Feldman

Senior Director

### Regulatory & Scientific Affairs

1220 L Street, NW

Washington, DC 20005-4070

USA

Telephone 202-682-8340

Fax 202-682-8270

E-mail [feldman@api.org](mailto:feldman@api.org)



**To:** Bylin, Carey[Bylin.Carey@epa.gov]  
**From:** Tom Michels  
**Sent:** Mon 11/2/2015 4:58:05 PM  
**Subject:** RE: ONE Future Document Review

Hey Carey,

Just checking in to see if these times work for you – if not, say the word and I will adjust as appropriate.

Tom Michels

Direct – 202-589-1759

Office – 202-589-0015

Mobile – 202-413-2059

**From:** Tom Michels  
**Sent:** Friday, October 30, 2015 4:21 PM  
**To:** 'Bylin, Carey'  
**Cc:** Franklin, Pamela; Waltzer, Suzanne; Pryor, Justin  
**Subject:** RE: ONE Future Document Review

Hi Carey,

Thanks so much to you and all for taking the time to review. Next week is fine. On Wednesday, would you have availability sometime between 11 – 2pm? Alternatively on Thursday, would you have availability sometime between 10am – 1pm?

If neither time works, just let me know and we will figure it out. Also, is it alright if we have Fiji listening in on the phone? (If you're open to others, we could have the whole crew but it might make it easier to go over things in a small group first.)

Thanks very much and Happy Halloween!

Tom Michels

Direct – 202-589-1759

Office – 202-589-0015

Mobile –202-413-2059

**From:** Bylin, Carey [<mailto:Bylin.Carey@epa.gov>]  
**Sent:** Friday, October 30, 2015 3:58 PM  
**To:** Tom Michels  
**Cc:** Franklin, Pamela; Waltzer, Suzanne; Pryor, Justin  
**Subject:** ONE Future Document Review

Hi Tom,

I hope you are doing well and getting ready for the Halloween weekend. We've reviewed the ONE Future document and would like to see if we can find a time next week to meet and discuss our feedback. Could next Wednesday or Thursday possibly work for you to meet? If so, then I can check schedules on Monday and propose some times.

I know you were looking for feedback by today so I hope it's okay that our feedback will be a little late, but hopefully we can find a time next week.

Have a great weekend.

---

Ms. Carey Bylin

International Programs Leader, Oil and Gas

Natural Gas STAR Program

Global Methane Initiative

U.S. Environmental Protection Agency

Phone: +1-202-343-9669

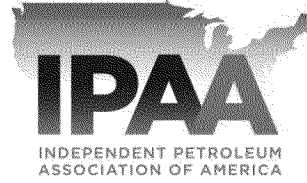
Visiting Address & Private Deliveries (courier, FedEx etc.)

1201 Constitution Ave NW, Room Number 4353 UU, Washington DC 20004

U.S. Mail Address:

Mail Code 6207M, 1200 Pennsylvania Ave NW, Washington DC 20460





November 20, 2015

The Honorable Janet McCabe  
Acting Assistant Administrator  
Office of Air and Radiation  
U.S. Environmental Protection Agency

Also via Electronic Mail to [methanechallenge@tetrattech.com](mailto:methanechallenge@tetrattech.com)

**Re: Comments on the EPA Natural Gas STAR Methane Challenge Program: Draft Partnership Agreement**

Dear Ms. McCabe:

The American Petroleum Institute (API), America's Natural Gas Alliance (ANGA), and the Independent Petroleum Association of America (IPAA) appreciate this opportunity to provide our comments to EPA regarding the recently- released Natural Gas STAR Methane Challenge program draft Partnership Agreement. Though the agreement is concise, we recommend the following modifications to add clarity to the document.

**Use of "Partnership":** Referring to participants in the Methane Challenge as "partners" could create fiduciary duties and unintended consequences for both EPA and program participants. We suggest that "partnership agreement" and "partner" be removed from the agreement and replaced with the terms, "participation agreement" and "participant", respectively.

**Reference to Best Management Practices:** Best Management Practices are listed as one of two participant commitment options in the agreement. EPA has outlined its expectations for Best Management Practices in its Natural Gas STAR Methane Challenge Program: Supplementary Technical Information, which should be either included in or referenced by this agreement.

**Definition of Company-Wide:** Consistent with our comments on the Natural Gas STAR Methane Challenge Program: Proposed Framework, the best way to obtain high levels of participation is to make the program as flexible as possible. The definition of company-wide in the Methane Challenge Proposal provides flexibility and aligns company decision making. Company-wide in this agreement should be explicit, clear and consistent with the definition in the Methane Challenge Proposal.

**Agreement Termination, Binding on Successors:** The agreement's termination clause should include how to address change in ownership of assets that are part of the program. When ownership of an asset is transferred or divested by a participant, its inclusion in the program and obligations within it should immediately terminate.

**General Term 1:** We suggest adding the following language (red text) to the last sentence: Participation in this Program does not in any way change legal obligations of participants to comply with applicable regulations or establish any new, legally enforceable obligations. The agreement does not impart any rights, duties or obligations outside the specific terms of the agreement and does not inure to the benefit of, or establish any rights, duties or obligations to third parties.

**General Term 2:** We suggest adding the following language (red text) to the first sentence: This agreement can be terminated by either party at any time, for any reason, with no notice or penalties, contractual or otherwise, and no further obligation.

Once again, we appreciate the opportunity to work with EPA to frame the details for a successful and mutually beneficial methane emissions reduction program that achieves EPA's goals through voluntary measures. We look forward to engaging with you and your staff on these initiatives. Please contact us if you have any questions.

Sincerely,



Howard J. Feldman  
Senior Director, Regulatory and Scientific Affairs  
American Petroleum Institute



Erica Bowman  
Vice President, Research and Policy Analysis  
America's Natural Gas Alliance



Lee O. Fuller  
Executive Vice President  
Independent Petroleum Association of America (IPAA)

Cc: Joseph Goffman, US EPA  
Paul Gunning, US EPA  
Carey Bylin, US EPA



*PROPOSAL FOR STAKEHOLDER  
FEEDBACK – 11-24-15*



**Natural Gas STAR  
Methane Challenge Program:  
Supplementary Technical Information for ONE  
Future Commitment Option**





*PROPOSAL FOR STAKEHOLDER  
FEEDBACK – 11-24-15*



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### Introduction

This document provides additional details to augment the Natural Gas STAR Methane Challenge Program ("Methane Challenge") proposal dated July 23, 2015,<sup>1</sup> which EPA has received feedback on and is in the process of revising and finalizing. The July proposal listed methane emission sources that EPA is considering for inclusion in the Best Management Practices Commitment Option (BMP Option), and on October 19, 2015, EPA released a document that provided additional information for each of those sources, including source descriptions, additional detail on mitigation options, and proposed Greenhouse Gas Reporting Program (GHGRP) and voluntary reporting data elements that would be reported annually to EPA to track partner progress. This document is intended to provide similar details for a number of additional oil and gas methane emission sources, which would be needed to track the emissions intensity commitment under the proposed ONE Future Emissions Intensity Commitment Option (ONE Future Option). Because companies selecting the ONE Future Option would need to quantify all of their methane emission sources, this document is intended to be comprehensive and cover all applicable methane emitting sources covered in the GHGRP and the Greenhouse Gas Inventory (GHGI) at the facility.

EPA requests feedback on the information presented in this document. Specific questions are presented in Appendix A.

### Methane Challenge Commitment Options and Program Reporting

As described in the July Methane Challenge Program proposal, the ONE Future Option entails making a commitment to achieve a specified average rate of emissions intensity across all facilities within a specific segment by 2025. Under the BMP Option, companies would commit to company-wide implementation of best practices to reduce methane emissions from key sources by a future date, as determined by the partner company.<sup>2</sup> EPA's intent through Methane Challenge is to promote voluntary methane emission reduction actions beyond regulatory requirements (e.g., State regulations and New Source Performance Standards (NSPS)). Partner companies would designate the timing for achieving company-wide implementation of related voluntary mitigation actions for one or more of the key emission sources (BMP Option) or would specify milestones for achieving their target emissions intensity rate (ONE Future Option).

Transparency is a key principle of the Methane Challenge Program proposal. To achieve this transparency, Methane Challenge partner companies would report annually on their actions supporting this voluntary Program through an EPA platform. EPA aims to minimize the reporting burden to allow partner companies to focus time and resources on implementation of methane-reducing activities.

Because relevant oil and gas data are already collected by Subpart W<sub>3</sub> of the GHGRP for many industry operations, EPA intends to rely on that data to the extent possible.

Facilities subject to Subpart W are already required to report most of the information that would be

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<sup>1</sup> The Methane Challenge Program proposal can be found on the Natural Gas STAR website at [http://www3.epa.gov/gasstar/documents/methane\\_challenge\\_proposal\\_072315.pdf](http://www3.epa.gov/gasstar/documents/methane_challenge_proposal_072315.pdf).

<sup>2</sup> EPA released on October 19, 2015 "Draft Supplementary Technical Information" to provide proposed technical details for the BMP commitment option sources.



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3 40 CFR, Part 98, Subpart W ([http://www.ecfr.gov/cgi-bin/text-](http://www.ecfr.gov/cgi-bin/text-idx?SID=68e8c5c1fb460b0cde0c1401850f7b26&mc=true&node=sp40.21.98.w&rqn=div6#se40.21.98_1234)

[idx?SID=68e8c5c1fb460b0cde0c1401850f7b26&mc=true&node=sp40.21.98.w&rqn=div6#se40.21.98\\_1234](http://www.ecfr.gov/cgi-bin/text-idx?SID=68e8c5c1fb460b0cde0c1401850f7b26&mc=true&node=sp40.21.98.w&rqn=div6#se40.21.98_1234))



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relevant to tracking Methane Challenge Program commitments at the company level.

Supplementary voluntarily-supplied data to be submitted under the Methane Challenge Program (through an EPA platform, to be developed) would allow the partners and EPA to comprehensively track progress towards commitments. For example, supplementary data would be needed to track progress on a partner's facilities that are not required to report to the GHGRP, and on sources and mitigation activities not currently covered by the GHGRP.<sup>4</sup>

EPA proposes that parent companies submit the following information as part of annual reporting, in order to provide context for participation in the Program and facilitate annual tracking of progress:

- List of facilities acquired/divested during the reporting year

This document includes the following information for each emission source: the segments in which the source's methane emissions would be quantified, the methods for quantifying such emissions, and the corresponding data elements to be reported by Partners. Each data element includes a specification of whether it is already being reported to GHGRP. EPA is proposing to use GHGRP quantification methods for sources covered in Subpart W, and GHGI quantification methods for sources not included in Subpart

W. For the supplemental data, in the cases where multiple emission quantification methods are suggested and there is no specification as to their use, partner companies can select any quantification method. EPA is also considering the inclusion of other quantification methods that are supplemental to GHGRP Subpart W for certain emission sources (e.g. measurement for certain sources), for which facilities could potentially select either the GHGRP or Methane Challenge Quantification Method for purposes of tracking Methane Challenge commitments.<sup>5</sup> EPA requests feedback on this approach.<sup>6</sup>

For equipment leaks/fugitive emissions and pneumatic pumps, EPA recognizes the potential overlap for coverage of this emissions source with on-going regulatory actions, including the proposed updates to NSPS and draft Control Techniques Guidelines. Methane Challenge intends to specify mitigation options that are consistent with regulatory approaches, with greater flexibility included in the voluntary Program as needed. Therefore, as a result of regulatory developments in process, a proposal for these sources will be phased-in at a later date.

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<sup>4</sup> For example, distribution sector stakeholders have indicated interest in addressing emissions from distribution pipeline blowdowns and reporting the use of cast iron pipe liners, both of which are not reported to the GHGRP. <sup>5</sup> Participation in Methane Challenge does not in any way change legal obligations of partners to comply with applicable laws and regulations, including GHGRP Subpart W.

<sup>6</sup> EPA requests that commenters focus on EPA's overall approach regarding quantification methods, including where new quantification methods are needed to cover certain sources due to gaps in the current options (e.g. in cases where EFs may not cover emissions levels before and after mitigation), and whether measurement should be allowed for some sources for which Subpart W does not currently allow measurement. EPA will not consider comments on changing the available GHGI EFs or Subpart W quantification methods. Those comments should be shared through GHGRP and GHGI channels.



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For reporting purposes, the Methane Challenge Program intends to utilize the same source, segment and facility definitions as Subpart W, to the extent applicable. Data would be reported at the facility level, except where specified.

### ONE Future Emissions Intensity

ONE Future's overall program goal is to reduce CH<sub>4</sub> emissions by 2025 to one percent of gross U.S. natural gas production. This is ONE Future's National Intensity Target. The target will be based on emissions data from the EPA's Inventory of U.S. Greenhouse Gas Emissions and Sinks (GHGI) and production data from the U.S. Energy Information Administration (EIA). To enable diverse companies involved in different segments of the natural gas supply chain to report CH<sub>4</sub> emissions in a manner that is both consistent and transparent, ONE Future companies will follow a Methane Emissions Intensity Estimation Protocol<sup>1</sup> and compute the emissions as noted below. ONE Future focuses on reductions in corporate emissions intensity performance towards a pre-determined intensity goal whereas the BMP option focuses on application of certain cost-effective technologies across the entire corporation. Hence, it is not needed under the ONE Future to review the emission control status of each emission source at each facility rather the company has flexibility to apply emission controls where it deems appropriate and through transparent reporting it demonstrates that the corporate performance is at or below the 2025 goals set for each segment of the natural gas value chain.

The following are recommended emissions estimation methods for various sources in different segments.

#### 1. Production Segment

Table 1 outlines the emission sources applicable to natural gas production operations and included in the GHGI for Natural Gas Systems. Table 1 provides a reference to the rule language that addresses the sources included in the GHGRP and indicates which sources are not included in the GHGRP.

Table 1. Production Segment Emission Sources

Emission Source	GHGRP Reference
Vented Emission Sources	
Gas Well Completions and Work overs with Hydraulic Fracturing	98.232(c)(6), 98.232(c)(8)
Gas Well Completions and Work overs without Hydraulic Fracturing	98.232(c)(5), 98.232(c)(7)
Well Venting for Liquids Unloading	98.232(c)(5)
Pneumatic Controller Vents	98.232(c)(1)
Chemical Injection Pump Vents	98.232(c)(3)
Dehydrator Vents	98.232(c)(14)
Storage Tanks Vents	98.232(c)(10)
Tank Vent Malfunctions	98.232(c)(10)
Well Testing Venting	98.232(c)(12)
Associated Gas Venting	98.232(c)(13)
Acid Gas Removal	98.232(c)(17)
Well Drilling	Not included
Vessel Blowdowns	Not included
Pipeline Blowdowns	Not included

<sup>1</sup> The scope of this protocol is limited to CH<sub>4</sub> emissions reporting and progress tracking. Specific program elements for company engagement in the EPA Methane Challenge Program, such as memorandums of understanding (MOU) between participating companies and the EPA, implementation plans, and specific data submission and management software to support emissions reporting, will be defined by EPA or are outside the scope of this document.



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Compressor Blowdowns	Not included
Compressor Starts	Not included
Pressure Relief Valves	Not included
Mishaps	Not included
Fugitive Emission Sources	
Reciprocating Compressors	98.232(c)(11)
Centrifugal Compressors	98.232(c)(19)
Well site Fugitive Emissions	98.232(c)(21)
Combustion Emission Sources	
Internal Combustion Units	98.232(c)(22)
External Combustion Units	98.232(c)(22)
Flare Stacks	98.232(c)(9)
Well Testing Flaring	98.232(c)(12)
Associated Gas Flaring	98.232(c)(13)

### 1.1 Subpart W Sources and Methods

For production operations, the GHGRP requires reporting emissions for the sources shown in Table 1.2. The estimation method(s) required by the GHGRP is also summarized in the table. ONE Future proposes to report emissions based on metric tons of CH<sub>4</sub> emissions for the sources listed below.

Table 1.2. GHGRP CH<sub>4</sub> Emission Sources for Production Operations

CH <sub>4</sub> Emission Source	GHGRP Subpart	CH <sub>4</sub> Estimation Method
<b>Vented Emission Sources</b>		
Gas well venting during completions and workovers without hydraulic fracturing	989.233(h)	Default emission factor
Gas well venting during completions and workovers with hydraulic fracturing	98.233(g)	Measured flowback gas volume vented or flared
Well venting for liquids unloading	98.233(f)	Engineering estimation or direct measurement
Pneumatic Controllers	98.233(a)	Default emission factors based on type of pneumatic controller
Pneumatic Pumps	98.233(c)	Default emission factor
Dehydrator Vents	98.233(e)	Dehydrators >0.4 MMscf use modeling. Dehydrators <0.4 MMscf use default emission factor. Desiccant dehydrators use an engineering equation.
Kimray Vents		
Storage Tanks	98.233(j)	For throughput > 10 barrels/day: Process simulator or engineering estimate based on liquid composition. For throughput <10 barrels/day: default emission factor.
Separator liquid dump valves	98.233(j)	Based on tank emissions and time the dump valve is not closing properly
Well Testing Venting and Flaring	98.233(l)	Engineering estimate based on gas to oil ratio or gas production rate
Associated Gas Venting and Flaring	89.233(m)	Engineering estimate based on gas to oil ratio
AGR Vents	98.233(d)	No CH <sub>4</sub> emissions are required to be reported for AGR vents
<b>Fugitive Emission Sources</b>		
Reciprocating Compressors – Fugitive	98.233(p)	Default emission factor
Centrifugal Compressors - Fugitive	98.233(o)	Default emission factor
Well Site - Fugitive	98.233(q)	Default component counts and default emission factors
<b>Combustion Emissions Sources</b>		
External combustion sources	98.233(z)	Fuel combustion rates and gas composition
> 5 MMBTU/hr		
Internal combustion sources	98.233(z)	Fuel combustion rates and gas composition
>1 MMBTU/hr		
Flare Stacks	98.233(n)	Flow measuring device on the flare or use of engineering calculations based on process knowledge, company records, and best available data

### 1.2 Non Subpart W Sources and Methods

We propose that for emissions for facilities that are under the reporting threshold of 25,000 tonnes/year and/or are not



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subject to the GHGRP will be based on the participant's emissions data from the facilities that do report to the GHGRP. Where a participant does not have specific emissions data to apply to these facilities, default GHGRP emission factors will be applied, or average GHGRP emission factors will be developed from the publicly available GHGRP data. This approach applies to this category of 'below-threshold' emission sources for all segments.

### 1.3 Emissions for Sources Not Included in the GHGRP

Table 1.3 indicates emission sources that are not currently included in the GHGRP. An example of sources intentionally not included in GHGRP would be blowdown emissions in Production. Table 1.3 provides recommended emission factors for sources not currently included in the GHGRP for onshore production operations. ONE Future proposes that the emission factors for this category of sources be revised to align with future changes to the GHGI and/or GHGRP, as appropriate.

**Table 1.3. Recommended CH<sub>4</sub> Emission Factors for Missing Emission Sources in Onshore Production Operations**

CH <sub>4</sub> Emission Source	Recommended CH <sub>4</sub> Emission Factor	Units	Data Source
Well Drilling	2,698	scfy CH <sub>4</sub> /well	GHGI 2012
Vessel Blowdowns	82.6	scfy CH <sub>4</sub> /vessel	GHGI 2012
Pipeline Blowdowns	327.1	scfy CH <sub>4</sub> /mile	GHGI 2012
Compressor Blowdowns	3,967	scfy CH <sub>4</sub> /compressor	GHGI 2012
Compressor Starts	8,149	scfy CH <sub>4</sub> /compressor	GHGI 2012
Pressure Relief Valves	36.1	scfy CH <sub>4</sub> /PRV	GHGI 2012
Mishaps	708.1	scfy CH <sub>4</sub> /mile	GHGI 2012

As of the date of this protocol, the GHGRP does not currently require reporting for gas gathering pipelines and central gas handling facilities that exist between natural gas production operations and gas processing plants (emissions from these operations are expected to be added to the GHGRP in 2016, with reporting due in 2017). Table 1.4 provides recommended emission factors to account for the missing emission sources for Gathering operations. The emission factors shown are primarily default factors for gathering equipment as outlined in the proposed rule from December 2015<sup>2</sup>, or emission factors derived from GHGRP data for similar equipment in production operations.

Table 1.5 outlines recommended emission factors for gathering sources which do not have similar emissions data from production operations in the GHGRP. GHGI emission factors are applied for these sources. We recommend that both Tables 1.4 and 1.5 be updated as reporting requirements under the GHGRP expand to include gathering operations and emissions data are available publicly.

**Table 1.4. Recommended CH<sub>4</sub> Emission Factors for Gathering Operations**

CH <sub>4</sub> Emission Source	Recommended CH <sub>4</sub> Emission Factor	Units
Vented Sources		
Pneumatic Controllers	Low-bleed: 1.39	scfh gas/controller
	High bleed: 37.3	
	Intermittent bleed: 15.3	
Chemical Injection Pumps	13.3	scfh gas/pump
AGR Vents	6,083	scfd CH <sub>4</sub> /AGR
Kimray Vents	1,297	Scf CH <sub>4</sub> /MMscf
Dehydrator Vents		throughput
Storage Tank Vents	50,639 for throughput > 10 bbl/day	scf CH <sub>4</sub> /sep-yr
	4,200 for crude throughput <10 bbl/day	scf CH <sub>4</sub> /sep-yr
	17,600 for condensate throughput <10	scf CH <sub>4</sub> /sep-yr
	bbl/day	
Tank Vent Malfunctions	To be developed from GHGRP data released in 2015	
Fugitive Emission Sources		
Reciprocating Compressors	9.48×10 <sup>3</sup>	scfy CH <sub>4</sub> /compressor
Centrifugal Compressors	1.2×10 <sup>7</sup>	scfy CH <sub>4</sub> /compressor

<sup>2</sup> FR Vol. 79, 73148, December 9, 2014, Proposed Rules



## Gathering Pipeline

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Heaters	Apply default component counts per	scf gas/hour/mile of
Separators	equipment and default component	pipeline
Dehydrators	emission factors from GHGRP	scfh gas/equipment
Meters/Piping		
Combustion Emission Sources		
External combustion sources	55,652	scf CH <sub>4</sub> /unit-yr
> 5 MMBTU/hr		
Internal combustion sources	Not available until September 2015	scf CH <sub>4</sub> /unit-yr
>1 MMBTU/hr		
Flare Stacks	4,396	Mscf CH <sub>4</sub> /flare-yr

Table 1.5. Recommended CH<sub>4</sub> Emission Factors for Missing Emission Sources in Onshore Gathering Operations

CH <sub>4</sub> Emission Source	Recommended CH <sub>4</sub> Emission Factor	Units	Data Source
Vessel Blowdowns	82.6	scfy CH <sub>4</sub> /vessel	GHGI 2012
Pipeline Blowdowns	327.1	scfy CH <sub>4</sub> /mile	GHGI 2012
Compressor Blowdowns	3,967	scfy CH <sub>4</sub> /compressor	GHGI 2012
Compressor Starts	8,149	scfy CH <sub>4</sub> /compressor	GHGI 2012
Pressure Relief Valves	36.1	scfy CH <sub>4</sub> /PRV	GHGI 2012
Mishaps	708.1	scfy CH <sub>4</sub> /mile	GHGI 2012

## 2. Processing Segment

Table 2.1 outlines the CH<sub>4</sub> emission sources applicable to natural gas processing operations. For gas processing, all emission sources from the national GHGI are included in the GHGRP except pneumatic controllers.

Table 2.1. Processing Segment Emission Sources

Emission Source	GHGRP Reference
Vented Emission Sources	
Blowdown Vent Stacks	98.232(d)(3)
Dehydrator Vents	98.232(d)(4)
Acid Gas Removal Vents	98.232(d)(5)
Pneumatic Controllers	Not included
Fugitive Emission Sources	
Reciprocating Compressors	98.232(d)(1)
Centrifugal Compressors	98.232(d)(2)
Plant Fugitive Emissions	98.232(d)(7)
Combustion Emission Sources	
Internal Combustion Units	Subpart C
External Combustion Units	Subpart C
Flare Stacks	98.232(d)(6)

### 2.1 Subpart W Sources and Methods

For gas processing operations, the GHGRP requires reporting emissions for the emission sources shown in Table 2.2. The estimation method(s) required by the GHGRP is also summarized in the table.

Table 2.2. GHGRP CH<sub>4</sub> Emission Sources for Gas Processing Facilities



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CH <sub>4</sub> Emission Source	GHGRP Subpart	CH <sub>4</sub> Estimation Method
<b>Vented Emission Sources</b>		
Blowdown Vent Stacks	98.233(i)	Engineering estimation
Kimray Vents	98.233(e)	Dehydrators >0.4 MMscf use modeling. Dehydrators <0.4 MMscf use default emission factor. Desiccant dehydrators use an engineering equation.
Dehydrator Vents		
AGR Vents	98.233(d)	No CH <sub>4</sub> emissions are required to be reported for AGR vents
Pneumatic Controllers	Not included	Not included for gas processing
<b>Fugitive Emission Sources</b>		
Reciprocating Compressors – Fugitive	98.233(p)	Emissions are based on annual measurement of compressors in the mode found for reciprocating rod packing vents, unit isolation valve vents, and blowdown valve vents
Centrifugal Comp. (wet seals) – Fugitive	98.233(o)	Emissions are based on annual measurement of compressors in the mode found for all vents, including wet seal oil degassing vents, unit isolation valve vents, and blowdown valve vents
Centrifugal Comp (dry seals) – Fugitive		
Plants - Fugitive	98.233(q)	Equipment leaks from valves, connectors, open ended lines, pressure relief valves, and meters are calculated based on a leak detection survey and default leaker emission factors
<b>Combustion Emission Sources</b>		
Gas Engines	Subpart C	Fuel combustion rates and measured or default HHV or carbon content
Gas Turbines		
Flare Stacks	98.233(n)	Flow measuring device on the flare or use of engineering calculations based on process knowledge, company records, and best available data

### 2.2. Non Subpart W Sources and Methods

Refer to Section 1.2

### 2.3. Emissions for Sources Not Included in the GHGRP

For gas processing, emissions from pneumatic controllers are included in the GHGI, but are not included in Subpart W of the GHGRP. Exhaust emissions from gas engines and turbines are reported under Subpart C which does not currently enable emission factor development. In addition, although Acid Gas Removal units are reported in the GHGRP, only CO<sub>2</sub> emissions are required to be reported. Table 3.8 provides recommended emissions factors for these sources based on emission factors from the GHGI. ONE Future proposes that the emission factors for this category of sources be revised to align with future changes to the GHGI and/or GHGRP, as appropriate.

**Table 2.3. Recommended CH<sub>4</sub> Emission Factors for Missing Emission Sources in Gas Processing Operations**

CH <sub>4</sub> Emission Source	Recommended CH <sub>4</sub> Emission Factor	Units	Data Source
Acid Gas Removal Units	5,376.4	Scfd CH <sub>4</sub> /AGR	GHGI 2012
Pneumatic Controllers	145,524	scfy CH <sub>4</sub> /plant	GHGI 2012
Exhaust from Gas Engines and Turbines	306.8	tonnes CH <sub>4</sub> /plant-yr	Derived from GHGI 2012 data



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### 3. Transmission and Storage Segment

Table 3.1 and 3.2 outline the emission sources applicable to natural gas transmission and storage operations, respectively. The tables indicate which sources are included in the GHGRP and those that are not.

Table 3.1. Transmission Segment Emission Sources

Emission Source	GHGRP Reference
Vented Emission Sources	
Transmission Storage Tanks and compressor scrubber dump valve leakage	98.232(e)(3)
Blowdown Vent Stacks	98.232(e)(4)
Pneumatic Controllers	98.232(e)(5)
Dehydrator Vents	Not included
Pipeline Venting	Not included
Fugitive Emission Sources	
Reciprocating Compressors	98.232(e)(1)
Centrifugal Compressors	98.232(e)(2)
Station Fugitive Emissions	98.232(e)(7)
Pipeline Leaks	Not included
Combustion Emission Sources	
Internal Combustion Units	Subpart C
External Combustion Units	Subpart C
Flare Stacks	98.232(e)(6)

Table 3.2. Storage Segment CH<sub>4</sub> Emission Sources

Emission Source	GHGRP Reference
Vented Emission Sources	
Pneumatic Controllers	98.232(f)(3)
Dehydrator Vents	Not included
Storage Station Venting	Not included
Fugitive Emission Sources	
Reciprocating Compressors	98.232(f)(1)
Centrifugal Compressors	98.232(f)(2)
Station Fugitive Emissions	98.232(f)(5)
Storage Wells	98.232(f)(5)
Combustion Emission Sources	
Internal Combustion Units	Subpart C
External Combustion Units	Subpart C
Flare Stacks	98.232(f)(4)



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### 3.1 Subpart W Sources and Methods

For transmission operations, the GHGRP requires reporting CH<sub>4</sub> emissions for the emission sources shown in Table 3.3. Emission sources reported under the GHGRP for Storage operations are shown in Table 3.4. The estimation method(s) required by the GHGRP is also summarized in the tables.

Table 3.3. GHGRP CH<sub>4</sub> Emission Sources for Transmission Facilities

CH <sub>4</sub> Emission Source	GHGRP Subpart	CH <sub>4</sub> Estimation Method
<b>Vented Emission Sources</b>		
Transmission Storage Tanks - compressor scrubber dump valve leakage	98.233(k)	Annual monitoring and measurement where the tank vapors from the vent stack are continuous for 5 minutes
Blowdown Vent Stacks	98.233(i)	Engineering estimation or flow meters
Pneumatic Controllers	98.233(a)	Default emission factors based on type of pneumatic controller
<b>Fugitive Emission Sources</b>		
Reciprocating Compressors – Fugitive	98.233(p)	Emissions are based on annual measurement of compressors in the mode found for reciprocating rod packing vents, unit isolation valve vents, and blowdown valve vents
Centrifugal Compressors – Fugitive	98.233(o)	Emissions are based on annual measurement of compressors in the mode found for all vents, including wet seal oil degassing vents, unit isolation valve vents, and blowdown valve vents
Plants - Fugitive	98.233(q)	Equipment leaks from valves, connectors, open ended lines, pressure relief valves, and meters are calculated based on a leak detection survey and default leaker emission factors
<b>Combustion Emission Sources</b>		
Gas Engines	Subpart C	Fuel combustion rates and measured or default HHV or carbon content
Gas Turbines		
Flare Stacks	98.233(n)	Flow measuring device on the flare or use of engineering calculations based on process knowledge, company records, and best available data

Table 3.4. GHGRP CH<sub>4</sub> Emission Sources for Storage Facilities

CH <sub>4</sub> Emission Source	GHGRP Subpart	CH <sub>4</sub> Estimation Method
<b>Vented Emission Sources</b>		
Pneumatic Controllers	98.233(a)	Default emission factors based on type of pneumatic controller
<b>Fugitive Emission Sources</b>		
Reciprocating Compressors – Fugitive	98.233(p)	Emissions are based on annual measurement of compressors in the mode found for reciprocating rod packing vents, unit isolation valve vents, and blowdown valve vents



Centrifugal Compressors –  
Fugitive

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98.233(o)

Emissions are based on annual measurement of compressors in the mode found for all vents, including wet seal oil degassing vents, unit isolation valve vents, and blowdown valve vents

Stations - Fugitive

98.233(q)

Equipment leaks from valves, connectors, open ended lines, pressure relief valves, and meters are calculated based on a leak detection survey and default leaker emission factors

Storage Wellheads - Fugitive

98.233(q)

Equipment leaks from valves, connectors, open ended lines, and pressure relief valves are calculated based on a leak detection survey and default leaker emission factors

### Combustion Emission Sources

Gas Engines

Subpart C

Fuel combustion rates and measured or default HHV or carbon content

Gas Turbines

Flare Stacks

98.233(n)

Flow measuring device on the flare or use of engineering calculations based on process knowledge, company records, and best available data

## 3.2 Non Subpart W Sources and Methods

Refer to Section 1.2.

### 3.3 Emissions for Sources Not Included in the GHGRP

Table 3.5 lists CH<sub>4</sub> emission sources that are not currently included in the GHGRP for the transmission and storage segments and provides suggested emission factors to account for the missing emission sources. ONE Future proposes that the emission factors for this category of sources be revised to align with future changes to the GHGI and/or GHGRP, as appropriate.

Table 3.5. Recommended CH<sub>4</sub> Emission Factors for Missing Emission Sources in Transmission and Storage Operations

CH <sub>4</sub> Emission Source	Suggested CH <sub>4</sub> Emission Factor	Units	Data Source
<b>Transmission</b>			
Dehydrator Vents	93.72	Scf CH <sub>4</sub> /MMscf	GHGI 2012
Pipeline Venting	31.65	Mscfy CH <sub>4</sub> /mile	GHGI 2012
Pipeline Leaks	1.55	Scfd CH <sub>4</sub> /mile	GHGI 2012
<b>Storage</b>			
Dehydrator Vents	117.18	scf CH <sub>4</sub> /MMscf	GHGI 2012
Storage Station Venting	4,359	Mscfy CH <sub>4</sub> /station	GHGI 2012
<b>Transmission and Storage Combustion</b>			
Engine Exhaust	10,525	scf CH <sub>4</sub> /station	GHGI 2012
Turbine Exhaust	100	scf CH <sub>4</sub> /station	GHGI 2012

## 4. Distribution Segment

Table 4.1, 4.2 and 4.3 outline the emission sources applicable to LNG storage, LNG import and export terminals, and





**PROPOSAL FOR STAKEHOLDER  
FEEDBACK – 11-24-15**



natural gas distribution operations, respectively. The tables indicate sources that are included in the GHGRP and those that are not.

**Table 4.1. LNG Storage Segment CH<sub>4</sub> Emission Sources**

Emission Source	GHGRP Reference
Vented Emission Sources	
Storage Station Venting	Not included
Fugitive Emission Sources	
Reciprocating Compressors	98.232(g)(1)
Centrifugal Compressors	98.232(g)(2)
Station Fugitive Emissions	98.232(g)(3)
Combustion Emission Sources	
Internal Combustion Units	Subpart C
External Combustion Units	Subpart C
Flare Stacks	98.232(g)(4)

**Table 4.2. LNG Import/Export Segment CH<sub>4</sub> Emission Sources**

Emission Source	GHGRP Reference
Vented Emission Sources	
Blowdown Vent Stacks	98.232(h)(3)
Fugitive Emission Sources	
Reciprocating Compressors	98.232(h)(1)
Centrifugal Compressors	98.232(h)(2)
Station Fugitive Emissions	98.232(h)(4)
Combustion Emission Sources	
Internal Combustion Units	Subpart C
External Combustion Units	Subpart C
Flare Stacks	98.232(h)(5)

**Table 4.3. Distribution Segment CH<sub>4</sub> Emission Sources**

Emission Source	GHGRP Reference
Vented Emission Sources	
Pneumatic Controllers	Not included
PVR Releases	Not included
Pipeline Blowdowns	Not included
Dig-ins	Not included
Fugitive Emission Sources	
Station Fugitive Emissions	98.232(i)(1)
Below Grade Transmission-Distribution Transfer Stations	98.232(i)(2)
Above Grade Metering-Regulating Stations	98.232(i)(3)
Below Grade Metering-Regulating Stations	98.232(i)(4)
Distribution Mains	98.232(i)(5)



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Distribution Services	98.232(i)(6)
Residential Meters	Not included
Commercial Meters	Not included
Industrial Meters	Not included
Combustion Emission Sources	
Internal Combustion Units	98.232(i)(7)
External Combustion Units	98.232(i)(7)

### 4.1 Subpart W Sources and Methods

Emission source reported under the GHGRP for LNG Storage operations are shown in Table 4.4 and Table 4.5 for LNG import/export operations. For distribution operations, the GHGRP requires reporting emissions for the emission sources shown in Table 4.6.

Table 4.4. GHGRP CH<sub>4</sub> Emission Sources for LNG Storage Facilities

CH <sub>4</sub> Emission Source	GHGRP Subpart	CH <sub>4</sub> Estimation Method
Fugitive Emission Sources		
Reciprocating Compressors – Fugitive	98.233(p)	Emissions are based on annual measurement of compressors in the mode found for reciprocating rod packing vents, unit isolation valve vents, and blowdown valve vents
Centrifugal Comp. (wet seals) – Fugitive	98.233(o)	Emissions are based on annual measurement of compressors in the mode found for all vents, including wet seal oil degassing vents, unit isolation valve vents, and blowdown valve vents
Centrifugal Comp (dry seals) – Fugitive		
Storage Station Fugitive Emissions	98.233(q)	Equipment leaks from valves, pump seals, connectors, and “other” are calculated based on a leak detection survey and default leaker emission factors. .
	98.233(r)	Default emission factor is provided for vapor recovery compressors
Combustion Emission Sources		
Gas Engines	Subpart C	Fuel combustion rates and measured or default HHV or carbon content
Gas Turbines		
Flare Stacks	98.233(n)	Flow measuring device on the flare or use of engineering calculations based on process knowledge, company records, and best available data

Table 4.5. GHGRP CH<sub>4</sub> Emission Sources for LNG Import/Export Facilities

CH <sub>4</sub> Emission Source	GHGRP Subpart	CH <sub>4</sub> Estimation Method
Vented Emission Sources		
Blowdown Vent Stacks	98.233(i)	Engineering estimation
Fugitive Emission Sources		
Reciprocating Compressors – Fugitive	98.233(p)	Emissions are based on annual measurement of compressors in the mode found for reciprocating rod packing vents, unit isolation valve vents, and blowdown valve vents
Centrifugal Comp. (wet seals) – Fugitive	98.233(o)	Emissions are based on annual measurement of compressors in the mode found for all vents, including wet seal oil degassing vents, unit isolation valve vents, and blowdown valve vents
Centrifugal Comp (dry seals) – Fugitive		
Station Fugitive Emissions	98.233(q)	Equipment leaks from valves, pump seals, connectors, and “other” are calculated based on a leak detection survey and default leaker emission factors.
	98.233(r)	A default emission factor is provided for vapor recovery compressors.
Combustion Emission Sources		
Gas Engines	Subpart C	Fuel combustion rates and measured or default HHV or carbon content



Gas Turbines  
Flare Stacks

## PROPOSAL FOR STAKEHOLDER FEEDBACK – 11-24-15



98.233(n) Flow measuring device on the flare or use of engineering calculations based on process knowledge, company records, and best available data

Table 4.6. GHGRP CH<sub>4</sub> Emission Sources for Distribution Operations

CH <sub>4</sub> Emission Source	GHGRP Subpart	CH <sub>4</sub> Estimation Method
<b>Fugitive Emission Sources</b>		
Equipment leaks from above grade transmission-distribution transfer stations	98.233(q)	Equipment leaks from connectors, block valves, control valves, pressure relief valves, orifice meters, regulators, and open ended lines are calculated based on a leak detection survey and default leaker emission factors.
Equipment leaks from below grade transmission-distribution transfer stations	98.233(r)	Emission factors are calculated based on all surveyed above grade transmission-distribution transfer stations
Equipment leaks from above grade metering-regulating stations	98.233(r)	Emission factors are calculated based on all surveyed above grade transmission-distribution transfer stations
Equipment leaks from below grade metering-regulating stations	98.233(r)	Default emission factors are provided for below grade M&R stations
Distribution main equipment leaks	98.233(r)	Default emission factors are provided by pipeline material type.
Distribution services equipment leaks	98.233(r)	Default emission factors are provided by pipeline material type.
<b>Combustion Emission Sources</b>		
External combustion sources > 5 MMBTU/hr	98.233(z)	Fuel combustion rates and gas composition
Internal combustion sources >1 MMBTU/hr	98.233(z)	Fuel combustion rates and gas composition

### 4.2 Non Subpart W Sources and Methods

Because all natural gas distribution companies are required to report under Subpart NN of the GHGRP, all companies also have to report under Subpart W. Therefore, Subpart W reporting includes emissions from all natural gas distribution companies.

### 4.3 Emissions for Sources Not Included in the GHGRP

For LNG Storage and Import/Export operations, exhaust emissions from gas engines and turbines are reported under Subpart C which does not currently enable emission factor development. Table 4.7 provides recommended CH<sub>4</sub> emission factors for these sources.

Table 4.7. Recommended CH<sub>4</sub> Emission Factors for Missing Emission Sources Associated with LNG Operations

CH <sub>4</sub> Emission Source	Suggested Emission CH <sub>4</sub> Factor	Units	Data Source
Combustion Emission Sources			
LNG Engines	0.24	scf CH <sub>4</sub> /HP-	GHGI 2012



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LNG Turbines

0.0056

hr  
scf CH<sub>4</sub>/HP-  
hr

GHGI 2012

Table 4.8 provides recommended CH<sub>4</sub> emission factors for emission sources that are included in the GHGI but are not currently reported under Subpart W for distribution operations. ONE Future proposes that the emission factors for this category of sources be revised to align with future changes to the GHGI and/or GHGRP, as appropriate.

Table 4.8. Recommended CH<sub>4</sub> Emission Factors for Missing Emission Sources in the Distribution Segment

CH <sub>4</sub> Emission Source	Suggested Emission Factor	Units	Data Source
Vented Emission Sources			
PVR Releases	0.0502	Mscf CH <sub>4</sub> /mile	GHGI 2012
Pipeline Blowdowns	0.1023	Mscf CH <sub>4</sub> /mile	GHGI 2012
Dig-ins	1.595	Mscf CH <sub>4</sub> /mile	GHGI 2012
Fugitive Emission Sources			
Residential Meters	143.3	scfy CH <sub>4</sub> /meter	GHGI
Commercial Meters	47.9	scfy CH <sub>4</sub> /meter	GHGI
Industrial Meters	47.9	scfy CH <sub>4</sub> /meter	GHGI



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FEEDBACK – 11-24-15



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<sup>160</sup> As calculated per the specified emission quantification methodologies for each source.

<sup>161</sup> 40 CFR 98.232(c)(12)

<sup>162</sup> 40 CFR 98.233(l)

<sup>163</sup> *ibid*

<sup>164</sup> As calculated per the specified emission quantification methodologies for each source.

\_\_\_\_\_  
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### Appendix A: Questions for Stakeholders

EPA encourages stakeholders to provide comments on any and all aspects of this document. EPA will carefully consider and evaluate all feedback received through the feedback deadline. To the extent appropriate, applicable, and consistent with the aims of the Methane Challenge Program, this feedback will be incorporated into a revised framework document. Following are specific areas in which EPA encourages stakeholders to provide feedback:

1. EPA proposes annual collection of information on voluntary actions that were undertaken to reduce methane emissions. The quantification of methane emission reductions is proposed to be calculated per the specified emission quantification methodologies for each source (e.g. using the suggested methods to quantify emissions before and after mitigation actions to quantify reductions achieved). EPA seeks feedback on this proposal. In particular, are there sources that companies plan to mitigate for which the proposed quantification method(s) would not be capable of capturing emissions levels before and after mitigation? If so, please provide a listing of those sources and recommendations on how to quantify emissions reductions from those sources.
2. In the "Draft Supplementary Technical Information" document released October 19, 2015, EPA had proposed that companies report on Distribution segment Excavation Damages by calculating methane emissions for each incident (as opposed to using EFs). Distribution companies selecting the ONE Future Commitment Option may or may not seek to reduce Excavation Damages to meet their commitment. If they do plan to mitigate Excavation damages, EPA recommends that they report using the BMP method, but for other companies that don't want to demonstrate reductions from this source they may want to report using EFs.
3. Per the previous question about reporting emissions and activities from Distribution segment Excavation Damages, EPA seeks comment on whether there are other sources that should be treated in a similar way.
4. Are potential partners interested in reporting measured methane emissions for any sources that currently don't include measurement in the quantification options? Please comment on this and, if so, provide information on recommended measurement protocols for sources of interest.
5. EPA seeks feedback on the proposal to use the plastic pipe EF for "Distribution Mains - Cast Iron or Unprotected Steel with Plastic Liners or Inserts" and "Distribution Services - Cast Iron or Unprotected Steel with Plastic Liners or Inserts."
6. For cast iron services, EPA seeks comment on how to quantify methane emissions, and requests quantification methodology suggestions, including any available data.
7. The Natural Gas STAR Program Annual Reporting Forms specify Sunset Dates (the length of time a technology or practice can continue to accrue emission reductions after implemented) for mitigation options (<http://www3.epa.gov/gasstar/tools/program-forms.html>). Should the Methane Challenge Program create a similar structure to establish Sunset Dates for designated mitigation options?

**To:** Bylin, Carey[Bylin.Carey@epa.gov]  
**From:** Jeremy Kamo  
**Sent:** Wed 10/14/2015 10:53:14 PM  
**Subject:** Re: UNEP/CCAC - Flaring reduction project & innovation platform

Hi Carey,

Following up on our earlier emails, wondering if we might be able to find time to speak early next week, perhaps next Monday, 19th at 12:30pm ET (9:30am PT)?

Cheers,  
Jeremy

On Wed, Sep 23, 2015 at 5:39 AM, Bylin, Carey <[Bylin.Carey@epa.gov](mailto:Bylin.Carey@epa.gov)> wrote:

Hi Jeremy,

Thank you for getting in touch on this. I'd be happy to discuss, but it will have to be in the later part of next week. Would that work for you?

---

Ms. Carey Bylin

International Programs Leader, Oil and Gas

Natural Gas STAR Program

Global Methane Initiative

U.S. Environmental Protection Agency

Phone: [+1-202-343-9669](tel:+1-202-343-9669)

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Mail Code 6207M, 1200 Pennsylvania Ave NW, Washington DC 20460



**From:** Jeremy Kamo [mailto:[jeremy.kamo@furtherbydesign.com](mailto:jeremy.kamo@furtherbydesign.com)]  
**Sent:** Thursday, September 17, 2015 2:33 AM  
**To:** Bylin, Carey  
**Subject:** UNEP/CCAC - Flaring reduction project & innovation platform

Hi Carey,

I understand you run the EPA's Natural Gas STAR program and the Methane Challenge.

I've been working with UNDP/Climate and Clean Air Coalition (CCAC) and PEMEX on a project to reduce black carbon associated with flaring and venting. Its been going really well, across the PEMEX facility we're hoping to be able to:

- mitigate 8.2 megatons of carbon annually
- generate \$83.7m in annual revenues

As we look at the challenges the project has revealed, we've also begun exploring whether an innovation program focused on technology, financial and policy innovations for reducing flaring and venting would be appropriate for the industry and have begun talking to a few service providers, research organizations, oil & gas companies, funders and policy makers.

Given the work you're doing with oil & gas companies around voluntary commitments, I was wondering if we could discuss your current approach and see

where the two projects might come together.

What does your schedule look like next week? Would a call Wednesday 4pm ET (1pm PT) work for you?

Best,

Jeremy

--

Jeremy Kamo

connector

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--

Jeremy Kamo

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Partner & Connector

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Skype | [jeremy.kamo](https://www.skype.com/people/jeremy.kamo)

**To:** Bylin, Carey[Bylin.Carey@epa.gov]  
**From:** Jamie Dandar  
**Sent:** Tue 10/6/2015 8:45:05 PM  
**Subject:** Natural Gas STAR Methane Challenge Program

Hello Carey,

I was reading about the Natural Gas STAR program on your website. It sounds like it's still in development. We'd like to apply for STAR status once available. What next steps should I take in order to achieve this?

Thank you so much!

Jamie M. Dandar

Director of Marketing

[jdandar@keanegrp.com](mailto:jdandar@keanegrp.com)

303-618-0603 – Mobile



**To:** Bylin, Carey[Bylin.Carey@epa.gov]  
**From:** Ann W Loomis (Services - 6)  
**Sent:** Mon 10/5/2015 7:59:58 PM  
**Subject:** FW: Meeting request from Dominion  
[image001.gif](#)

Carey,

The following will attend our meeting scheduled for this Wednesday on the Methane Challenge program.

Cristie Neller – VP Gas System Engineering

Alice Prior – Environmental

Molly Plautz – Federal Affairs Manager

Myself

Thanks,

Ann

**Ann Loomis|Senior Advisor, Federal & Environmental Policy|Dominion**

400 N. Capitol Street, NW, Suite 875, Washington, DC 20001

202.585.4205

**From:** Ann W Loomis (Services - 6)  
**Sent:** Thursday, September 24, 2015 8:35 AM  
**To:** Bylin, Carey  
**Subject:** Re: Meeting request from Dominion

Carey,

Oct 7 at 3:00 is great for us. We will want to discuss the proposed Methane Challenge program.

Thanks,

Ann

Sent from my iPhone

On Sep 23, 2015, at 8:45 PM, Bylin, Carey <[Bylin.Carey@epa.gov](mailto:Bylin.Carey@epa.gov)> wrote:

Hi Ann,

The 7<sup>th</sup> works. How about 3p? Just to confirm, does this mostly cover Methane Challenge, or do you anticipate that we should include our GHGRP representatives?

---

Ms. Carey Bylin

International Programs Leader, Oil and Gas

Natural Gas STAR Program

Global Methane Initiative

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U.S. Mail Address:

Mail Code 6207M, 1200 Pennsylvania Ave NW, Washington DC 20460

<image001.gif>

**From:** Ann W Loomis (Services - 6) [<mailto:ann.w.loomis@dom.com>]

**Sent:** Wednesday, September 23, 2015 9:56 AM

**To:** Bylin, Carey

**Subject:** RE: Meeting request from Dominion

Carey,

Thanks for your reply. It would be a staff-level meeting and we would like to suggest the 7<sup>th</sup> if possible. I will provide you with the names attending from Dominion. It would be a few people from our environmental division and gas transmission operations.

Thank you,

Ann

**Ann Loomis|Senior Advisor, Federal & Environmental Policy|Dominion**

400 N. Capitol Street, NW, Suite 875, Washington, DC 20001

202.585.4205

**From:** Bylin, Carey [<mailto:Bylin.Carey@epa.gov>]  
**Sent:** Wednesday, September 23, 2015 8:46 AM  
**To:** Ann W Loomis (Services - 6)  
**Subject:** RE: Meeting request from Dominion

Hi Ann,

Thanks very much for getting in touch on this. We would of course be happy to set up a meeting to discuss your questions/feedback on the Methane Challenge proposal. The week of October 5 is pretty open right now (hopefully the government will be open!), and Monday or Wednesday would be best days. I assume this will be a staff-level meeting?

---

Ms. Carey Bylin

International Programs Leader, Oil and Gas

Natural Gas STAR Program

Global Methane Initiative

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<image001.gif>

**From:** Ann W Loomis (Services - 6) [<mailto:ann.w.loomis@dom.com>]

**Sent:** Wednesday, September 16, 2015 5:38 PM

**To:** Bylin, Carey

**Subject:** Meeting request from Dominion

Carey,

I have joined a few of the meetings you and your team have held in INGAA and other companies on the Methane Challenge program. At the last meeting there was an extensive discussion of INGAA's DI&M program as a best management practice and some shortcomings that could be added to the program to improve accountability. Dominion has a few issues concerning the Methane Challenge proposal that extend beyond the DI&M program. We like an opportunity to meet with you and your team to discuss these issues any provide any additional information that you may need.

We could be available the week of October 5 if you have any time available.

Thank you for considering this request. We will be available at your convenience.

Ann

**Ann Loomis|Senior Advisor, Federal & Environmental Policy|Dominion**

400 N. Capitol Street, NW, Suite 875, Washington, DC 20001

**To:** Bylin, Carey[Bylin.Carey@epa.gov]; Franklin, Pamela[Franklin.Pamela@epa.gov]  
**Cc:** Gunning, Paul[Gunning.Paul@epa.gov]  
**From:** Theresa Pugh  
**Sent:** Fri 10/2/2015 5:35:07 PM  
**Subject:** INGAA request for additional time for Methane Challenge comments  
[MethaneChallengeextesionOct2letterfinal.pdf](#)

Please see our attached letter.

I hope your home and families are untouched by this coming storm.

Thank you.

Theresa Pugh

Vice President

Environment, Health & Construction Policy

Interstate Natural Gas Association of America (INGAA)

20 F Street, NW

Suite 450

Washington, D. C. 20001

[tpugh@ingaa.org](mailto:tpugh@ingaa.org)

202-216-5955

**To:** Bylin, Carey[Bylin.Carey@epa.gov]  
**From:** Brian Jones  
**Sent:** Wed 9/30/2015 8:26:18 PM  
**Subject:** Draft CH4 Connections Presentation  
DSI CH4-Connections\_BJones.pptx

Hi Carey

As discussed, attached is my draft presentation for the CH4 Connections conference next week in Houston. Please let me know if you have any thoughts or comments – I need to send it along to the conference organizers tomorrow.

Thanks

Brian

\*\*\*\*\*

Brian M. Jones

Senior Vice President, Strategy and Policy

M.J. Bradley & Associates, LLC.

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Concord, MA 01742

Direct: (978) 405-1269

Mobile: (b)(6) personal privacy

Fax: (978) 369-7712

Email: [bjones@mjbradley.com](mailto:bjones@mjbradley.com)

**Cc:** Rachel Lawley[rlawley@furtherbydesign.com]  
**To:** Bylin, Carey[Bylin.Carey@epa.gov]  
**From:** Jeremy Kamo  
**Sent:** Wed 9/30/2015 11:51:19 AM  
**Subject:** Re: UNEP/CCAC - Flaring reduction project & innovation platform

Hi Carey

Quick scheduling follow up, any chance we could still find time this week?

cc'ing Rachel Lawley to help find time for us.

Thanks,  
Jeremy

On Sep 23, 2015, at 9:45 AM, Jeremy Kamo <jeremy.kamo@furtherbydesign.com> wrote:

Hi Carey,

Unfortunately I'll be out of the office (getting married :), but my colleague Jeff Hamaoui who's running this project with me will be available, how does Friday at 3pm ET (12noon PT) work for you? Thursday and Friday are both fairly open.

Best,  
Jeremy

On Sep 23, 2015, at 5:39 AM, Bylin, Carey <Bylin.Carey@epa.gov> wrote:

**Hi Jeremy,**

**Thank you for getting in touch on this. I'd be happy to discuss, but it will have to be in the later part of next week. Would that work for you?**

---

**Ms. Carey Bylin**  
**International Programs Leader, Oil and Gas**  
**Natural Gas STAR Program**  
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<image001.gif>

From: Jeremy Kamo [mailto:[jeremy.kamo@furtherbydesign.com](mailto:jeremy.kamo@furtherbydesign.com)]  
Sent: Thursday, September 17, 2015 2:33 AM  
To: Bylin, Carey  
Subject: UNEP/CCAC - Flaring reduction project & innovation platform

Hi Carey,

I understand you run the EPA's Natural Gas STAR program and the Methane Challenge.

I've been working with UNDP/Climate and Clean Air Coalition (CCAC) and PEMEX on a project to reduce black carbon associated with flaring and venting. Its been going really well, across the PEMEX facility we're hoping to be able to:

- mitigate 8.2 megatons of carbon annually
- generate \$83.7m in annual revenues

As we look at the challenges the project has revealed, we've also begun exploring whether an innovation program focused on technology, financial and policy innovations for reducing flaring and venting would be appropriate for the industry and have begun talking to a few service providers, research organizations, oil & gas companies, funders and policy makers.

Given the work you're doing with oil & gas companies around voluntary commitments, I was wondering if we could discuss your current approach and see where the two projects might come together.

What does your schedule look like next week? Would a call Wednesday 4pm ET (1pm PT) work for you?

Best,  
Jeremy

--

Jeremy Kamo  
connector

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---  
**Jeremy Kamo**  
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**Jeremy Kamo**  
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**To:** Bylin, Carey[Bylin.Carey@epa.gov]  
**From:** Ann W Loomis (Services - 6)  
**Sent:** Thur 9/24/2015 12:34:59 PM  
**Subject:** Re: Meeting request from Dominion  
[image001.gif](#)

Carey,  
Oct 7 at 3:00 is great for us. We will want to discuss the proposed Methane Challenge program.  
Thanks,  
Ann

Sent from my iPhone

On Sep 23, 2015, at 8:45 PM, Bylin, Carey <[Bylin.Carey@epa.gov](mailto:Bylin.Carey@epa.gov)> wrote:

Hi Ann,

The 7<sup>th</sup> works. How about 3p? Just to confirm, does this mostly cover Methane Challenge, or do you anticipate that we should include our GHGRP representatives?

---

Ms. Carey Bylin

International Programs Leader, Oil and Gas

Natural Gas STAR Program

Global Methane Initiative

U.S. Environmental Protection Agency

Phone: +1-202-343-9669

Visiting Address & Private Deliveries (courier, FedEx etc.)

1201 Constitution Ave NW, Room Number 4353 UU, Washington DC 20004

U.S. Mail Address:

Mail Code 6207M, 1200 Pennsylvania Ave NW, Washington DC 20460

<image001.gif>

**From:** Ann W Loomis (Services - 6) [<mailto:ann.w.loomis@dom.com>]

**Sent:** Wednesday, September 23, 2015 9:56 AM

**To:** Bylin, Carey

**Subject:** RE: Meeting request from Dominion

Carey,

Thanks for your reply. It would be a staff-level meeting and we would like to suggest the 7<sup>th</sup> if possible. I will provide you with the names attending from Dominion. It would be a few people from our environmental division and gas transmission operations.

Thank you,

Ann

**Ann Loomis|Senior Advisor, Federal & Environmental Policy|Dominion**

400 N. Capitol Street, NW, Suite 875, Washington, DC 20001

202.585.4205

**From:** Bylin, Carey [<mailto:Bylin.Carey@epa.gov>]  
**Sent:** Wednesday, September 23, 2015 8:46 AM  
**To:** Ann W Loomis (Services - 6)  
**Subject:** RE: Meeting request from Dominion

Hi Ann,

Thanks very much for getting in touch on this. We would of course be happy to set up a meeting to discuss your questions/feedback on the Methane Challenge proposal. The week of October 5 is pretty open right now (hopefully the government will be open!), and Monday or Wednesday would be best days. I assume this will be a staff-level meeting?

---

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<image001.gif>

**From:** Ann W Loomis (Services - 6) [<mailto:ann.w.loomis@dom.com>]

**Sent:** Wednesday, September 16, 2015 5:38 PM

**To:** Bylin, Carey

**Subject:** Meeting request from Dominion

Carey,

I have joined a few of the meetings you and your team have held in INGAA and other companies on the Methane Challenge program. At the last meeting there was an extensive discussion of INGAA's DI&M program as a best management practice and some shortcomings that could be added to the program to improve accountability. Dominion has a few issues concerning the Methane Challenge proposal that extend beyond the DI&M program. We like an opportunity to meet with you and your team to discuss these issues and provide any additional information that you may need.

We could be available the week of October 5 if you have any time available.

Thank you for considering this request. We will be available at your convenience.

Ann

**Ann Loomis|Senior Advisor, Federal & Environmental Policy|Dominion**

400 N. Capitol Street, NW, Suite 875, Washington, DC 20001

202.585.4205

**To:** Bylin, Carey[Bylin.Carey@epa.gov]  
**From:** Lacey, Pam  
**Sent:** Thur 9/24/2015 1:52:17 AM  
**Subject:** RE: Methane Challenge - any word yet on BMP details and draft MOU text?

Ok - If you are available, let's talk tomorrow. I'm telecommuting in the morning. Mobile is 202-809-6565. -Pam

Sent from my Verizon Wireless 4G LTE Smartphone

----- Original message -----

**From:** "Bylin, Carey"  
**Date:** 09/23/2015 8:40 PM (GMT-05:00)  
**To:** "Lacey, Pam"  
**Subject:** RE: Methane Challenge - any word yet on BMP details and draft MOU text?

Hi Pam,

I'm so sorry but, as you know, the document is not out yet and I don't have a date at this point. If it would be helpful to discuss our plans, I'm happy to do that.

---

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**From:** Lacey, Pam [mailto:PLacey@aga.org]

**Sent:** Wednesday, September 23, 2015 11:24 AM

**To:** Bylin, Carey

**Subject:** Methane Challenge - any word yet on BMP details and draft MOU text?

Hi Carey – AGA is holding its Fall Committee Meetings next week, and I would like to have the BMP details for distribution, transmission and storage if possible so we could discuss them at the environmental committee meeting on Monday or Tuesday. Is that possible? Thanks! - Pam

**Pamela A. Lacey | Senior Managing Counsel, Environment**

American Gas Association

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**To:** Bylin, Carey[Bylin.Carey@epa.gov]  
**From:** Jeremy Kamo  
**Sent:** Wed 9/23/2015 4:45:53 PM  
**Subject:** Re: UNEP/CCAC - Flaring reduction project & innovation platform

Hi Carey,  
Unfortunately I'll be out of the office (b)(6) personal privacy but my colleague Jeff Hamaoui who's running this project with me will be available, how does Friday at 3pm ET (12noon PT) work for you? Thursday and Friday are both fairly open.

Best,  
Jeremy

On Sep 23, 2015, at 5:39 AM, Bylin, Carey <Bylin.Carey@epa.gov> wrote:

**Hi Jeremy,**

**Thank you for getting in touch on this. I'd be happy to discuss, but it will have to be in the later part of next week. Would that work for you?**

---

**Ms. Carey Bylin**  
**International Programs Leader, Oil and Gas**  
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**Mail Code 6207M, 1200 Pennsylvania Ave NW, Washington DC 20460**

<image001.gif>

From: Jeremy Kamo [mailto:jeremy.kamo@furtherbydesign.com]  
Sent: Thursday, September 17, 2015 2:33 AM  
To: Bylin, Carey  
Subject: UNEP/CCAC - Flaring reduction project & innovation platform

Hi Carey,

I understand you run the EPA's Natural Gas STAR program and the Methane Challenge.

I've been working with UNDP/Climate and Clean Air Coalition (CCAC) and PEMEX on a project to reduce black carbon associated with flaring and venting. Its been going really well, across the PEMEX facility we're hoping to be able to:

- mitigate 8.2 megatons of carbon annually
- generate \$83.7m in annual revenues

As we look at the challenges the project has revealed, we've also begun exploring whether an innovation program focused on technology, financial and policy innovations for reducing flaring and venting would be appropriate for the industry and have begun talking to a few service providers, research organizations, oil & gas companies, funders and policy makers.

Given the work you're doing with oil & gas companies around voluntary commitments, I was wondering if we could discuss your current approach and see where the two projects might come together.

What does your schedule look like next week? Would a call Wednesday 4pm ET (1pm PT) work for you?

Best,  
Jeremy

--

Jeremy Kamo  
connector

**FURTHER by Design™**

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| email: [jeremy.kamo@furtherbydesign.com](mailto:jeremy.kamo@furtherbydesign.com)  
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| web: [www.furtherbydesign.com](http://www.furtherbydesign.com)

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--

**Jeremy Kamo**  
connector

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**To:** Gunning, Paul[Gunning.Paul@epa.gov]  
**Cc:** Franklin, Pamela[Franklin.Pamela@epa.gov]; Bylin, Carey[Bylin.Carey@epa.gov]; Waltzer, Suzanne[Waltzer.Suzanne@epa.gov]  
**From:** Brian Jones  
**Sent:** Wed 9/23/2015 2:28:10 PM  
**Subject:** RE: Downstream Initiative Meeting - October 22

Hi Paul,

Thank you very much. That sounds great.

I will put the EPA team on the draft agenda in the afternoon and be in touch as the meeting gets closer.

I look forward to seeing you down in Houston at the CH4 Connections conference.

Thanks again,

Brian

**From:** Gunning, Paul [mailto:Gunning.Paul@epa.gov]  
**Sent:** Wednesday, September 23, 2015 8:35 AM  
**To:** Brian Jones <bjones@mjb Bradley.com>  
**Cc:** Franklin, Pamela <Franklin.Pamela@epa.gov>; Bylin, Carey <Bylin.Carey@epa.gov>; Waltzer, Suzanne <Waltzer.Suzanne@epa.gov>  
**Subject:** Re: Downstream Initiative Meeting - October 22

Brian -

After checking in with folks it looks like the 22nd would work well (afternoon will likely be better but we would be able to accommodate your schedule/agenda). I would be happy to attend and give an update on where we are with all of these topics. Carey and Pamela should be able to attend as well. I would say anywhere from 60-90 min to allow for presentation and discussion.

Hope this is helpful.

Paul

---

**From:** Brian Jones <[bjones@mjbroadley.com](mailto:bjones@mjbroadley.com)>  
**Sent:** Thursday, September 17, 2015 5:16 PM  
**To:** Gunning, Paul  
**Cc:** Franklin, Pamela; Bylin, Carey; Waltzer, Suzanne  
**Subject:** Downstream Initiative Meeting - October 22

Hi Paul,

I hope you are doing well.

The fall meeting of the Downstream Natural Gas Initiative is scheduled for October 22 in Washington DC. I am pulling together the agenda now and hope EPA will be able to join us.

Topics areas of interest to DSI include the following:

- Methane strategy update
- Methane Challenge Program
- National GHG Inventory

Please let me know any thoughts you may have on the topic areas, attendees and timing.

Thanks,

Brian

\*\*\*\*\*

Brian M. Jones

Senior Vice President, Strategy and Policy

M.J. Bradley & Associates, LLC.

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Concord, MA 01742

Direct: (978) 405-1269

Mobile: (b)(6) personal privacy

Fax: (978) 369-7712

Email: [bjones@mjbradley.com](mailto:bjones@mjbradley.com)

Web: [www.mjbradley.com](http://www.mjbradley.com)

\*\*\*\*\*

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**To:** Bylin, Carey[Bylin.Carey@epa.gov]  
**From:** Kathleen O'Kelley  
**Sent:** Tue 9/22/2015 6:33:20 PM  
**Subject:** Natural Gas Star Methane Challenge

Hello Carey:

I am on the planning committee for the ISA LDAR (Leak Detection & Repair) conference. This is a specific conference dedicated to the Oil & Gas industry. In 2016 the conference will be held in Denver, May 16-19 at the Hyatt Regency Tech Center. We would like to have you or someone from your program present at our conference on the Methane Challenge.

Attendees know they're going to receive the latest news and technical updates on best practices in air compliance, air emission reduction challenges and requirements, and LDAR program solutions. Numerous tutorials, panel sessions, and networking opportunities allow for extensive face-to-face discussions and interaction with government regulators as well as industry colleagues. Importance will be placed on:

- Outlining specific strategies for optimizing LDAR programs
- Providing examples of real-world implementations and successes
- Highlighting particular problems to avoid
- Preparing for the changes and challenges ahead.

Fugitive emissions Subject Matter Experts will present a range of important topics. Presenters include a combination of industry end users, consultants, and regulatory & enforcement officials from the EPA. Topics will be of interest to petroleum refineries, chemical processing plants, and pharmaceutical manufacturing. Experts with experience performing audits, setting up programs, and training will be present to answer questions and offer advice. The technological, software, and compliance challenges continue to mount, and this conference, now in its 16th year, always has answers.

Thank you for consideration.

--

Best Regards,

Kathleen O'Kelley  
Avanti Environmental, Inc.  
Business Development  
888-812-3022 X 501

**"Leak Free-Turn Key"**  
[avantienvironmental.com](http://avantienvironmental.com)

**To:** Bylin, Carey[Bylin.Carey@epa.gov]  
**From:** Jessica Stautberg  
**Sent:** Wed 9/9/2015 7:38:16 PM  
**Subject:** Questions regarding the Methane Challenge

Dear Ms. Bylin:

I'm working on an oil and gas article with a section dedicated to the reduction of methane emissions through the automation of some pipeline maintenance procedures. Is it possible for me to ask you a few questions about the EPA's Methane Challenge so that I can get a quote for the article? The article will appear in an early 2016 trade magazine produced by T.D. Williamson.

My questions are as follows:

What changes have you seen in the oil and gas industry in an attempt to control methane emissions? These can be processes, technologies, awareness programs, etc.

Does the EPA have suggested methods for reducing methane emissions?

What kind of responses have you received from the energy industry regarding the Methane Challenge?

Thanks for any participation that you can offer!

Jessica Stautberg

The Writers for Hire, Inc.

Copywriter/Editor

(713) 298-6719

**To:** Bylin, Carey[Bylin.Carey@epa.gov]  
**Cc:** Franklin, Pamela[Franklin.Pamela@epa.gov]; Waltzer, Suzanne[Waltzer.Suzanne@epa.gov]  
**From:** Lacey, Pam  
**Sent:** Wed 9/2/2015 3:28:11 PM  
**Subject:** RE: EPA-AGA Meeting on Methane Challenge - my conf call number or EPA's?

Carey – Do you want to provide a conference call-in number? Or shall I? - Pam

**Pamela A. Lacey | Senior Managing Counsel, Environment**

American Gas Association

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The American Gas Association represents more than 200 local energy companies committed to the safe delivery of clean natural gas to over 68 million customers throughout the nation.

**From:** Lacey, Pam  
**Sent:** Wednesday, September 02, 2015 11:09 AM  
**To:** 'Bylin, Carey' <Bylin.Carey@epa.gov>  
**Cc:** Franklin, Pamela <Franklin.Pamela@epa.gov>; Waltzer, Suzanne <Waltzer.Suzanne@epa.gov>  
**Subject:** RE: EPA-AGA Meeting on Methane Challenge

Hi Carey – Yes, 2-4 pm Friday Sept. 11. Thanks! - Pam

**Pamela A. Lacey | Senior Managing Counsel, Environment**

American Gas Association

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**From:** Bylin, Carey [<mailto:Bylin.Carey@epa.gov>]

**Sent:** Wednesday, September 02, 2015 10:42 AM

**To:** Lacey, Pam <[PLacey@aga.org](mailto:PLacey@aga.org)>

**Cc:** Franklin, Pamela <[Franklin.Pamela@epa.gov](mailto:Franklin.Pamela@epa.gov)>; Waltzer, Suzanne <[Waltzer.Suzanne@epa.gov](mailto:Waltzer.Suzanne@epa.gov)>

**Subject:** RE: EPA-AGA Meeting on Methane Challenge

Hi Pam,

Thanks for the quick response. 2p on Friday the 11<sup>th</sup> would be great. Shall we plan for 2 hours?

---

Ms. Carey Bylin

International Programs Leader, Oil and Gas

Natural Gas STAR Program

Global Methane Initiative

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**From:** Lacey, Pam [<mailto:PLacey@aga.org>]  
**Sent:** Wednesday, September 02, 2015 10:37 AM  
**To:** Bylin, Carey  
**Cc:** Franklin, Pamela; Waltzer, Suzanne  
**Subject:** RE: EPA-AGA Meeting on Methane Challenge

Carey – The votes are in. Friday Sept. 11<sup>th</sup> in the afternoon works for nearly everyone. The other days are not so good, in part because some of the operations technical people are tied up with a PHMSA workshop on Wednesday and Thursday next week.

Shall we say 2 pm on Friday Sept. 11? How long should we plan for? Thanks for being flexible. -  
Pam

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**From:** Bylin, Carey [<mailto:Bylin.Carey@epa.gov>]  
**Sent:** Tuesday, September 01, 2015 5:01 PM  
**To:** Lacey, Pam <[PLacey@aga.org](mailto:PLacey@aga.org)>  
**Cc:** Franklin, Pamela <[Franklin.Pamela@epa.gov](mailto:Franklin.Pamela@epa.gov)>; Waltzer, Suzanne <[Waltzer.Suzanne@epa.gov](mailto:Waltzer.Suzanne@epa.gov)>  
**Subject:** Re: EPA-AGA Meeting on Methane Challenge

Hi Pam,

Thank you for getting back to me. If next Wednesday doesn't work, we could also do Thursday or Friday. If none of those work then we can plan to move to the following week. Yes, we will provide a call-in line.

We don't have a specific date for when the technical documents will be released, but we are endeavoring to get them out as soon as possible to leave enough time for review prior to the feedback deadline of October 13.

Carey Bylin

On Sep 1, 2015, at 1:33 PM, Lacey, Pam <[PLacey@aga.org](mailto:PLacey@aga.org)> wrote:

Carey – I would like to include some members, and it may be difficult to get their attention this quickly – especially around the holiday weekend. Can you have a call in number? And if next Wednesday doesn't work out, how about Tuesday Sept. 15 or Wed. Sept. 16?

Also, when do you expect to release the draft technical information for the BMP option?  
Thanks! and enjoy your Labor Day weekend! - Pam

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Perhaps next Wednesday would work for you? Please let me know of your interest and availability and we can set up a call.

Thank you.

Best,

Carey

---

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Thank you.

Best,

Carey

---

Ms. Carey Bylin

International Programs Leader, Oil and Gas

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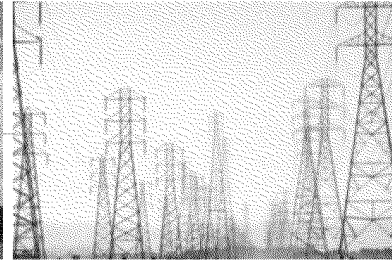
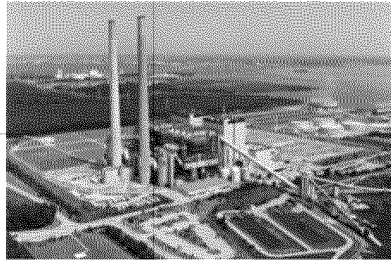
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# Downstream Natural Gas Initiative: EPA's Methane Challenge Program

CH<sub>4</sub> CONNECTIONS OCTOBER 6, 2015

Brian Jones  
978-405-1269  
[bjones@mjbbradley.com](mailto:bjones@mjbbradley.com)

MJB & A

MJB & A

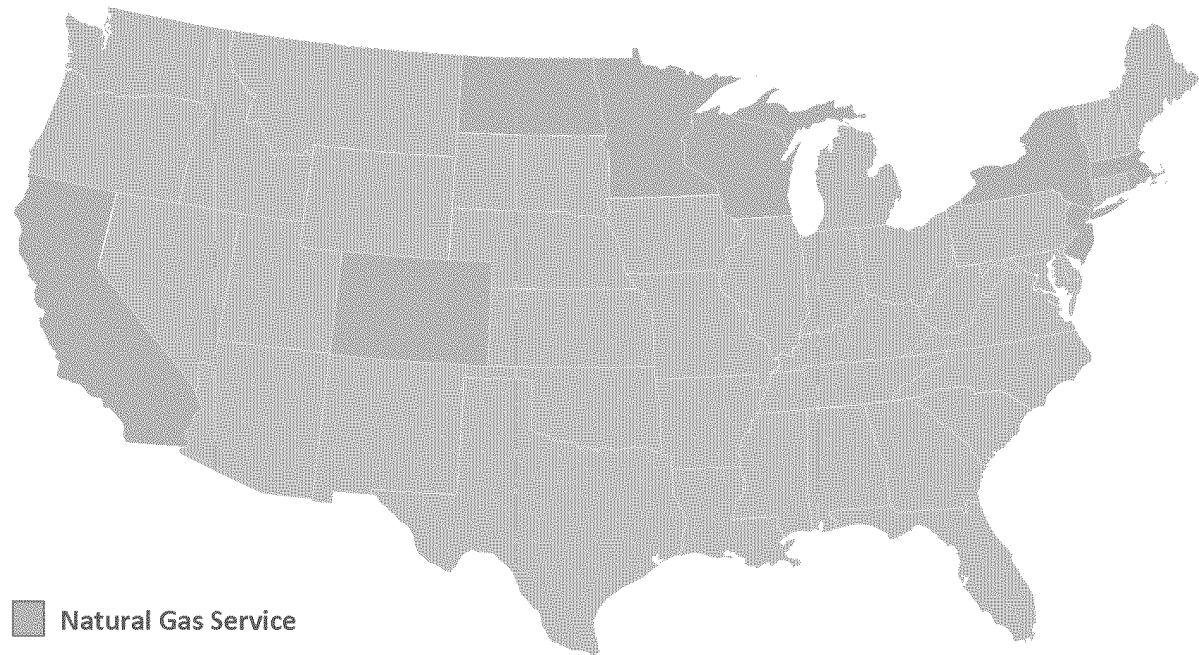
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# Downstream Natural Gas Initiative

A coalition of natural gas utility companies dedicated to promote outstanding operations to manage and substantially reduce methane emissions within natural gas distribution systems.

Our members deliver natural gas to more than 17.5 million customers accounting for 15 percent of the total natural gas deliveries in the U.S.

Nearly 184,000 miles of natural gas distribution mains throughout the U.S.



# DSI Focus Areas

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- **Regulatory:** promote effective repair and replacement programs, mechanisms for cost recovery and mitigating rate impacts, and means for measuring progress.
- **State of the Art Technology:** assess opportunities and barriers for adopting state-of the art leak detection technologies and innovative repair and replacement technologies.
- **Emissions Quantification:** leverage new data available from cutting edge research efforts and evaluate opportunities for improving quantification of emissions and emissions reduction activities.

# Role of LDCs in Reducing Methane Emissions

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- **Emission Reductions.** LDCs can reduce methane emissions from their own operations, enable reductions from other sectors (i.e., renewable natural gas) and aide customers to reduce emissions (fuel switching and energy efficiency).
- **Infrastructure Modernization.** LDCs are working with state PUCs to accelerate infrastructure modernization and replacement programs to improve safety and also reduce methane emissions.
- **Manage and Reduce Operational Emissions.** LDCs are investigating operational methane emissions associated with maintenance, main replacement, hydro testing, etc.
- **Research and Development.** LDCs are conducting research into methane leak detection and quantification to improve understanding of methane emissions from infrastructure, prioritize repair, and improve GHG inventories.

# Benefits of the Methane Challenge Program to LDCs

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- Encourage LDCs to **manage and reduce methane emissions** from infrastructure and operations
- Transparent **annual public reporting** and **recognition** of emission reduction achievements
- **Increase visibility** of operational excellence and methane emission reductions with PUCs, regulators, consumer advocates, customers, and environmental organizations
- Encourage **regulatory structures** that facilitate increased action to reduce methane emissions from LDC operations
- **Improve methane emissions accounting** and inform GHGRP and GHG Inventory



# Transparency and Reporting

- In addition to GHGRP Subpart W Reporting , EPA is also proposing that Methane Challenge Partners will be required to report Supplemental Data for some sources.

## Methane Challenge Partner reported emissions and reductions:

### GHGRP Subpart W Reporting

- Above and below ground M&R stations
- Mains and services

+

### Supplemental Data Reporting

- Lining and inserts for mains and services
- High pressure blowdowns (number of events, amount of gas released (pipe diameter x pressure x length), strategies to reduce methane emissions)
- Excavation Damages (number of locate calls, number of damages, time to shut in, amount of gas released, strategies to improve damage rate and shut in time)

=

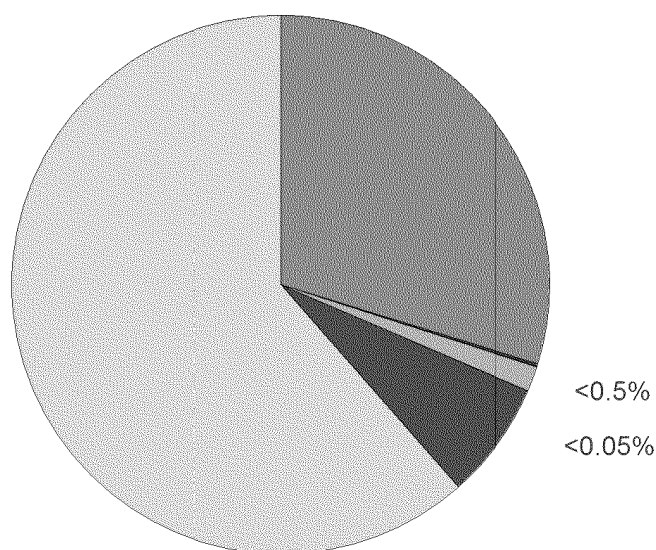
### Methane Emission Reductions

- Subpart W and Supplemental Data reporting will need to be merged to provide complete methane emissions and emissions reduction picture for Partners

# 2013 Natural Gas Distribution – Local Distribution Companies

## Methane Emissions by Source

GHGRP



Emission Source	CH <sub>4</sub> Emissions (MT CO <sub>2</sub> e)	% change from 2012
Mains	9,087,586	+12.0%
Services	4,397,392	+8.9%
Below Ground Metering	30,650	-71.8%
Above Ground Transfer Station	221,835	+9.3%
Below Ground Transfer Station	4,432	-50.3%
Other	1,044,304	-63.9%
<b>Total</b>	<b>14,786,198</b>	<b>-3.8%</b>

### Analysis Notes:

1. LDC – "Other" is defined as the remaining percentage from the difference between total LDC emissions reported, and the sum of each reported emissions source (Mains, Services, Metering, Transfer Station).
2. Combustion and Other Equipment Leaks combined account for <0.07% of Natural Gas Distribution.

# National GHG Inventory Considerations

## Potential National GHG Inventory Updates for LDCs

### Meter and Regulating Stations

#### Activity Data and Emission Factors

- Use GHGRP data for M&R station activity counts rather than throughput based formula
- Update emission factors for M&R stations using data from WSU and GHGRP

### Mains and Services

#### Emission Factors and Quantification Methodology

- Update emissions factors for pipelines using data from the WSU, GRI studies and GHGRP
- Change activity data for pipelines from leaks/mile to total leaks for each pipe material to more accurately account for pipeline replacement programs

### Liners and Inserts

#### Develop Emission Factors

- Develop separate emissions factors for pipelines with liners and inserts



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October 2, 2015

Ms. Carey Bylin  
National Gas STAR Program  
Global Methane Initiative (Oil & Gas)  
U.S. EPA  
1200 Pennsylvania Avenue N.W.  
Washington, D.C. 20460

**RE: Natural Gas Star Methane Challenge Program: Request for Extension of Time to Submit Comments**

Dear Carey:

On July 23, 2015, EPA announced the Natural Gas STAR Methane Challenge Program (the Methane Challenge). In late August EPA informed INGAA of its intent to publish a draft Memorandum of Understanding, draft Implementation Plan template and draft Technical Specifications for Best Management Practice commitment options and extended the comment period to October 13, 2015. To date, those additional three documents have not been published or made available on the EPA website <http://www3.epa.gov/gasstar/methanechallenge/>

While we are eager to comment on the Methane Challenge, a review of these three missing documents is critical to providing our views. Without seeing the details of the Implementation Plan or Technical Specifications for BMPs, we cannot fully answer EPA's questions. Therefore, INGAA respectfully requests that EPA extend the time to submit comments on the Methane Challenge program by an additional 30 days from the date of publication or public release of the additional Methane Challenge documents.

We appreciate EPA's consideration of this comment period extension request. Please contact me if you have any questions regarding this matter.

Sincerely,

Theresa Pugh  
Vice President  
Environment, Health & Construction Policy

**To:** Bylin, Carey[Bylin.Carey@epa.gov]  
**From:** Patney, Arjun  
**Sent:** Fri 8/21/2015 3:21:47 PM  
**Subject:** RE: Request for call on Methane Challenge

Hi Carey,

That's alright. I am available anytime on the 28<sup>th</sup>. I'm also available today through the 27<sup>th</sup> if you have time earlier. Just let me know what time/date works.

Regards,

Arjun

**From:** Bylin, Carey [mailto:Bylin.Carey@epa.gov]  
**Sent:** Friday, August 21, 2015 10:06 AM  
**To:** Patney, Arjun <Arjun.Patney@winrock.org>  
**Subject:** RE: Request for call on Methane Challenge

Hello Arjun,

Thank you very much for reaching out. I'm so sorry that I have not gotten back to you sooner (both on this and your earlier efforts to set up a meeting). Are you available next Friday, the 28<sup>th</sup>, for a meeting?

---

Ms. Carey Bylin

International Programs Leader, Oil and Gas

Natural Gas STAR Program

Global Methane Initiative

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U.S. Mail Address:

Mail Code 6207M, 1200 Pennsylvania Ave NW, Washington DC 20460



**From:** Patney, Arjun [<mailto:Arjun.Patney@winrock.org>]

**Sent:** Wednesday, August 12, 2015 6:29 PM

**To:** Bylin, Carey

**Subject:** Request for call on Methane Challenge

Dear Carey,

I have been interested to learn of the proposed Natural Gas STAR Methane Challenge Program. I would like to discuss with you the potential intersection with the American Carbon Registry's methodology, "Conversion of High-Bleed Pneumatic Controllers in Oil & Natural Gas Systems," for carbon offsets. Please let me know when you may have time to speak. I'm available as follows:

8/13: 3 – 5pm EDT

8/14: anytime

8/17: 9am – 11am EDT

8/18: 9am – 11am EDT

8/20: 11am – 1pm EDT

Please let me know if there is a window in there that will work for you. If at all possible, I'd prefer to speak this week, as I'll be traveling next week. I look forward to hearing from you.

Kind regards,

Arjun

Arjun Patney Policy Director

American Carbon Registry, an enterprise of Winrock International

office 916.520.8628 | cell 916.296.9032 | e-mail [arjun.patney@winrock.org](mailto:arjun.patney@winrock.org)

800 J Street, Suite 539 | Sacramento, CA 95814 USA | [www.winrock.org](http://www.winrock.org) | [www.americancarbonregistry.org](http://www.americancarbonregistry.org)

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**To:** Bylin, Carey[Bylin.Carey@epa.gov]  
**From:** Theresa Pugh  
**Sent:** Fri 8/21/2015 2:17:21 PM  
**Subject:** INGAA's Aug 26 meeting at 3 attendee list

Thank you for the dial in information. What number do you want me to dial (Or have the desk dial) when we arrive?

**The following are attending in person**

Theresa Pugh, INGAA

Pete Sheffield, Spectra

Reagan Mayces, Spectra

Judy Neason, Williams

Ann Loomis, Dominion (tentative)

Jim Tangeman, Kinder Morgan

Jim McCarthy, IES (consultant to INGAA)

**Those attending by phone**

Jeff McCombs, Columbia

Tom Bach, Kinder Morgan

Chad Edwards, Jim Cormack, Carey Booth of TransCanada

Thank you. See you next week.

**From:** Bylin, Carey [mailto:Bylin.Carey@epa.gov]  
**Sent:** Friday, August 21, 2015 10:03 AM  
**To:** Theresa Pugh  
**Subject:** RE: Aug 26 at 3 please

Hi Theresa,

I hope you are doing well. Thanks for your message about the Methane Challenge feedback deadline extension – I'm glad the new date works for you (and, importantly, for your vacation schedule).

For our August 26 meeting, we can use the following conference line. Will it be a conference call or will some be attending in person?

Toll-free dial-in number (U.S. and Canada): Ex. 6 - Personal Privacy

International dial-in number: Ex. 6 - Personal Privacy

Conference code: Ex. 6 - Personal Privacy

---

Ms. Carey Bylin

International Programs Leader, Oil and Gas

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**From:** Theresa Pugh [<mailto:tpugh@ingaa.org>]

**Sent:** Wednesday, August 12, 2015 1:02 PM

**To:** Bylin, Carey

**Subject:** Aug 26 at 3 please

Thank you. We will want a dial in number. I am talking to Tom Bach now. He and his wife will be on vacation. He will call in.

I have to confirm with the others that they can come.

Thank you!

**From:** Bylin, Carey [<mailto:Bylin.Carey@epa.gov>]

**Sent:** Wednesday, August 12, 2015 12:58 PM

**To:** Theresa Pugh

**Subject:** RE: Meeting Aug 26 at 3 please

Okay, will do. Let's plan to talk logistics and agenda once it's confirmed.

---

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U.S. Mail Address:

Mail Code 6207M, 1200 Pennsylvania Ave NW, Washington DC 20460



**From:** Theresa Pugh [<mailto:tpugh@ingaa.org>]

**Sent:** Wednesday, August 12, 2015 12:33 PM

**To:** Bylin, Carey

**Subject:** RE: Meeting Aug 26 at 3 please

Please hold 3-4:30 for us because the Canadians are two hours behind us. I don't want them feeling like they have to join a conf call at 7 am

Let me see if Tom's wife will hate me. I will call him now.

**From:** Bylin, Carey [<mailto:Bylin.Carey@epa.gov>]  
**Sent:** Wednesday, August 12, 2015 12:03 PM  
**To:** Theresa Pugh  
**Subject:** Meeting Aug 26?

Hi Theresa,

It looks like the following might work for us for a 90 minute EPA-INGAA meeting: 9a-10:30a or 3-4:30p. Let me know if either of those might work.

---

Ms. Carey Bylin

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U.S. Mail Address:

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**To:** Bylin, Carey[Bylin.Carey@epa.gov]  
**From:** Lacey, Pam  
**Sent:** Thur 8/20/2015 1:48:38 PM  
**Subject:** RE: Questions: Methane Challenge comment deadline; also GTI CH4 Connections panel

Hi Carey –

Yes, I heard about the extension. Thank you! That will help get more participation and input – getting beyond the August vacation season when everyone seems to have their ‘out of office’ message turned on. Plus, I hear that current members of One Future think they may be able to reach agreement by the end of next week on what their pathway would look like for distribution. That will help AGA members evaluate what is otherwise a pig-in-a-poke right now.

Kristine Wiley told me yesterday she thinks she has lined up some other speaker for my panel. I need to sort that out first, but I would really like to include you or someone from your team if at all possible. I’ll call Kristine and figure that out and let you know. In the meantime, please hold Oct. 6! Surely one of your team was planning to be at the CH4 Connections conference anyway?

And yes, I want to set up a meeting to discuss the Methane Challenge. I’m in town the week of August 31<sup>st</sup> and I’ll see who else I can line up. Yes, please provide a phone link so folks can participate remotely.

Thanks! - Pam

**Pamela A. Lacey | Senior Managing Counsel, Environment**

American Gas Association

400 N. Capitol St., NW | Washington, DC | 20001

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The American Gas Association represents more than 200 local energy companies committed to the safe delivery of

clean natural gas to over 68 million customers throughout the nation.

**From:** Bylin, Carey [mailto:Bylin.Carey@epa.gov]

**Sent:** Thursday, August 20, 2015 8:43 AM

**To:** Lacey, Pam <PLacey@aga.org>

**Subject:** RE: Questions: Methane Challenge comment deadline; also GTI CH4 Connections panel

Hi Pam,

Sorry for the delay in replying! I hope all is well.

I assume you've seen that we have extended the Methane Challenge deadline. I hope the new deadline gives folks enough time to conduct their review and provide feedback.

AS for the October 6 conference. Now that you mention it I believe someone from GTI reached out to me but I'm so hopelessly behind on e-mails I've never replied. We might be able to do October 6 – can you provide more information on the conference and the panel?

On another note, we would like to organize a discussion with AGA and member companies to discuss the technical details of the Methane Challenge proposal. We are looking to set something up the week of August 31. Would that potentially work for you? We can make it a call, of course, to facilitate broad participation.

---

Ms. Carey Bylin

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U.S. Mail Address:

Mail Code 6207M, 1200 Pennsylvania Ave NW, Washington DC 20460



**From:** Lacey, Pam [<mailto:PLacey@aga.org>]

**Sent:** Wednesday, August 12, 2015 4:18 PM

**To:** Bylin, Carey

**Subject:** Questions: Methane Challenge comment deadline; also GTI CH4 Connections panel

Hi Carey – Good presentation this afternoon for the ECOS webinar. Thanks! I have a couple of things to ask that are not related to ECOS –

➤ I hear there may be a slight extension of time to submit comments on the Methane Challenge proposal – is that correct?

➤ GTI CH4 Connections – I am moderating a panel on Oct. 6<sup>th</sup> at this conference on Initiatives to Reduce Methane Emissions. You were listed on the panel on the Preliminary Agenda, but now I see you have dropped off. Understandable given all that is going on. Could you suggest someone else to talk about the Methane Challenge? Or will you all be swamped at that point? Perhaps I could add someone to talk about the One Future pathway.

Thanks! - Pam

**Pamela A. Lacey | Senior Managing Counsel, Environment**

American Gas Association

400 N. Capitol St., NW | Washington, DC | 20001

P: 202-824-7340 | M: 202-809-6565 | F: 202-824-9190 | [placey@aga.org](mailto:placey@aga.org)

The American Gas Association represents more than 200 local energy companies committed to the safe delivery of clean natural gas to over 68 million customers throughout the nation.

**To:** Bylin, Carey[Bylin.Carey@epa.gov]  
**From:** John Blazosky  
**Sent:** Mon 8/10/2015 1:13:39 PM  
**Subject:** methane monitoring

After seeing your webinar, I am interested in your methane challenge program but want to know more about monitoring methane emissions particularly for natural gas pipelines.

I am working with others on linear communication systems and sensors and the questions center around the level of detection and associated planned regulatory levels.

Can you help me or direct me to the person in EPA who would know about these issues?

Thanks

Best,

John

John Blazosky

The WHM Group Inc.

[www.whmgroup.com](http://www.whmgroup.com)

814-404-2809

**To:** Bylin, Carey[Bylin.Carey@epa.gov]  
**Cc:** Gunning, Paul[Gunning.Paul@epa.gov]; Bach, Thomas[Thomas\_Bach@kindermorgan.com]; Franklin, Pamela[Franklin.Pamela@epa.gov]  
**From:** Theresa Pugh  
**Sent:** Wed 8/5/2015 12:34:19 AM  
**Subject:** Follow up  
[image001.gif](#)  
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We would like Sept 23 for our complete comments if acceptable.

When you say technical guidance could you be more clear? Does that have a separate comment deadline?

We would like to submit 1 set of comments on Sept 23 if possible to address the M Challenge paper.

I am around tomorrow if you want to chat. 2-216-5955.

Thank you.

Sent from mobile device, please excuse typos.

On Aug 4, 2015, at 8:24 PM, Bylin, Carey <Bylin.Carey@epa.gov<mailto:Bylin.Carey@epa.gov>> wrote:

Hi Theresa,

Thank you for following up. If I understand correctly, the September 23 date is being driven by your plan to develop an alternate proposal for handling pipeline blowdowns, is that right? If that is the case, there is no problem, as our detailed technical guidance is something we are working on now and we are on a different timeline for that versus the proposal. Are you also asking to give feedback on the proposal overall on Sept 23? In any case we really value your input and will definitely work with you on timing.

---

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From: Theresa Pugh [mailto:tpugh@ingaa.org]  
Sent: Tuesday, August 04, 2015 1:09 PM  
To: Bylin, Carey; Gunning, Paul  
Cc: Bach, Thomas  
Subject: Inquiry about deadline extension

Hi Carey and Paul:

Good afternoon. I wanted to find out if you have decided when the deadline would be for the Methane Challenge. I had requested July 23 but did not know if that date is acceptable.

We wanted to send out a timeline to our members for their dates for reviewing/approving our comments based upon the new deadline.

Thank you for considering our request for extra time.

Theresa

Theresa Pugh  
Vice President  
Environment, Health & Construction Policy  
Interstate Natural Gas Association of America (INGAA)  
20 F Street, NW  
Suite 450  
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tpugh@ingaa.org<mailto:tpugh@ingaa.org>  
202-216-5955

**To:** Bylin, Carey[Bylin.Carey@epa.gov]  
**From:** Nathan King  
**Sent:** Tue 7/28/2015 8:10:11 PM  
**Subject:** Methane Emissions Reduction - Robotic Cast Iron Joint Sealing  
removed.txt

Good afternoon Carey,

Our company has been following the work of the EPA's Natural Gas Star program for some time now. ULC Robotics performs research and development to efficiently develop and commercialize innovative technologies, processes and tools for gas distribution utilities. Through our extensive background in utility construction, trenchless technology, pipeline maintenance and robotic systems we are able to seamlessly and reliably take ideas from concept to commercialization. Our research and development model allows for accelerated decision making that shortens the path to commercialization while also providing ongoing technical counsel to utility innovation teams.

One of the technologies we developed and currently deploy is CISBOT, a robotic system that launches into live cast iron gas distribution (16"+ diameter) mains to perform internal repair of all cast iron joints. These repairs stop existing leaks and prevent new leaks from forming as backed by a Cornell University Study. CISBOT is deployed in Boston, New York, London and Edinburgh every day and its work has been monitored closely by gas utilities. You can see a video produced by National Grid in the UK at <https://www.youtube.com/watch?v=s6ZwQT5zww0>

I saw on the Methane Challenge documents and in today's webinar that some lining and sealing methods may help local distribution companies meet their goals of reducing emissions. I'm curious to know if your organization is intending on including mains sealed/lined towards the target % of mains replaced. If so, will the EPA need to approve technologies, such as CISBOT, as a viable method of rehabilitating the main and lowering emissions?

We have been working with gas utilities on various projects that can apply to this program that include extensive damage prevention programs, methane capture devices, 'no-blow' camera inspection systems, equipment for blow-downs of mains, 'no-blow' tooling and more. I would be happy to have myself or one of our directors meet with the EPA to provide an overview of what we do and learn more about how we can work with the EPA and our customers to contribute to methane emissions reduction.

I look forward to hearing from you soon.

Best regards,

**Nathan R. King**

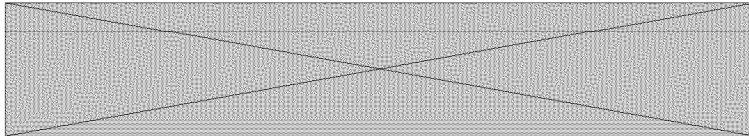
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**To:** Bylin, Carey[Bylin.Carey@epa.gov]  
**From:** Cooper, Hannah (CWDC)  
**Sent:** Tue 7/28/2015 6:00:51 PM  
**Subject:** EPA Methane Challenge Webinar Question

Hi Carey,

Thank you very much for the informative webinar. I just have a quick question, in the past, members of the Fluid Sealing Association have had to have a sponsorship from an end user to participate in the EPA Gas Star Program, is this true of the Methane Challenge?

Thank you!

Hannah Cooper

Grassroots & Advocacy Coordinator

Government Relations

Smiths Group

425 Third Street, SW, Ste. 875

Washington, DC 20024

Phone: 202-777-8455

Cell: 202-255-2964

Hannah.Cooper@smiths.com

**To:** Bylin, Carey[Bylin.Carey@epa.gov]; Gunning, Paul[Gunning.Paul@epa.gov]  
**Cc:** Mark Boling[Mark\_Boling@SWN.COM]; Jim Bolander[Jim\_Bolander@SWN.COM]; Goffman, Joseph[Goffman.Joseph@epa.gov]; Franklin, Pamela[Franklin.Pamela@epa.gov]; Tom Michels (tmichels@bwstrategies.com)[tmichels@bwstrategies.com]; Jim Kibler[jkibler@agresources.com]; White, Edward[Edward.White@nationalgrid.com]  
**From:** Fiji George  
**Sent:** Tue 7/28/2015 5:40:28 PM  
**Subject:** Methane Challenge Distribution Segment Webinar

Carey and Paul,  
I wanted to convey – great job on the webinar!

I wanted to reach out to see if you needed our support on the webinar but you guys did a great job. We will catch up later on couple of other details on the full proposal and schedules.

Thanks,

**Fiji George**  
**Director, Strategic Solutions**  
**Tel: 832-796-2891**  
**Mobile:** (b)(6) personal privacy  
**Email:** [fiji.george@swn.com](mailto:fiji.george@swn.com)

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**To:** Bylin, Carey[Bylin.Carey@epa.gov]  
**From:** Fiji George  
**Sent:** Thur 7/23/2015 2:20:50 PM  
**Subject:** ONE Future

Carey,

Just as an FYI...

It is likely that ONE Future may also employ some of the guidelines developed by CCAC (at least significant portions) – e.g. Appendix A.

So when we discuss about coordination with the other group, there may be options to coordinate with OF. Personally the more we standardize process between different programs, the better is for all of us..

*Fiji George*  
*Director, Strategic Solutions*  
*Tel: 832-796-2891*  
*Mobile: (b)(6) personal privacy*  
*Email: [fiji.george@swm.com](mailto:fiji.george@swm.com)*

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**To:** Bylin, Carey[Bylin.Carey@epa.gov]  
**From:** Tom Michels  
**Sent:** Tue 5/19/2015 1:34:30 AM  
**Subject:** RE: ONE Future call next week?  
DRAFT Proposed ONE Future Baseline and Progress Tracking-EPA-v2.pdf

Also, forgive me – I just realized that I completely forgot to send over the document to which I referred in my earlier note. See attached.

As to the long overdue questions, it would be good if you and I can take a few minutes so that I know what you have in mind in advance. That would help to ensure the least ambiguous answers... I'm around all day tomorrow if you have a few minutes. Thanks!

PS- we finally have a website: [www.onefuture.us](http://www.onefuture.us) check it out – would be grateful for any feedback you might have!

Tom Michels, Principal



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**From:** Bylin, Carey [mailto:Bylin.Carey@epa.gov]  
**Sent:** Monday, May 18, 2015 3:49 PM  
**To:** Tom Michels  
**Subject:** RE: ONE Future call next week?

Hi Tom,

Turns out we are having some trouble finding a time on Tuesday or Wednesday. Would Thursday work for the One Future group? We are open 10-11a or 2-3p on Thursday.

---

Ms. Carey Bylin

International Programs Leader, Oil and Gas

Natural Gas STAR Program

Global Methane Initiative

U.S. Environmental Protection Agency

Phone: +1-202-343-9669

Visiting Address & Private Deliveries (courier, FedEx etc.)

1201 Constitution Ave NW, Room Number 4353 UU, Washington DC 20004

U.S. Mail Address:

Mail Code 6207M, 1200 Pennsylvania Ave NW, Washington DC 20460



**From:** Tom Michels [<mailto:tmichels@bwstrategies.com>]  
**Sent:** Friday, May 15, 2015 5:10 PM  
**To:** Bylin, Carey  
**Subject:** Re: ONE Future call next week?

Actually not - I was talking about the program description I think we sent in the last call. I'll send again when I get to a desk so you know what I'm referring to.

I like the MOU but it has not yet been blessed by the Board so it's still unofficial.

No worries on time - have a great weekend!

Tom Michels, Principal  
[tmichels@bwstrategies.com](mailto:tmichels@bwstrategies.com)  
Office - [202-589-0015](tel:202-589-0015)  
Direct - [202-589-1759](tel:202-589-1759)  
Mobile - [202-413-2059](tel:202-413-2059)

*Sent from my mobile. Please pardon any typos.*

On May 15, 2015, at 5:02 PM, Bylin, Carey <[Bylin.Carey@epa.gov](mailto:Bylin.Carey@epa.gov)> wrote:

Hi Tom,

Thanks so much for reaching out. We missed a week in terms of meeting and I definitely kept "meaning" to get in touch and set something up!

The items you suggest below sound good for an agenda. We also want to ask some long-overdue questions about the actual design of the One Future program and commitments. In terms of the “last document” you quote below, received a proposed EPA-One Future MOU – is that what you were referring to? Not sure if that came through official One Future channels so just want to be sure.

I'll have to check first thing Monday for availability and will get back to you then. I hope that's okay? Preliminarily Wed at 10:30a is looking best.

Have a great weekend.

---

Ms. Carey Bylin

International Programs Leader, Oil and Gas

Natural Gas STAR Program

Global Methane Initiative

U.S. Environmental Protection Agency

Phone: +1-202-343-9669

Visiting Address & Private Deliveries (courier, FedEx etc.)

1201 Constitution Ave NW, Room Number 4353 UU, Washington DC 20004

U.S. Mail Address:

Mail Code 6207M, 1200 Pennsylvania Ave NW, Washington DC 20460



**From:** Tom Michels [<mailto:tmichels@bwstrategies.com>]  
**Sent:** Thursday, May 14, 2015 3:18 PM  
**To:** Bylin, Carey  
**Subject:** ONE Future call next week?

Hi Carey,

Hope this note finds you well. I wanted to see if you and the team might have some time to do a call with ONE Future next week?

For once, I'm happy to report that we don't have any new shifts to report from our side. In terms of what we might hope to get from this call, I think we'd primarily be interested to hear about EPA's progress toward unveiling a draft proposal, any issues that we can either help with or need to be prepared for, and also to see if you have any additional feedback on our last document you might wish to share. Of course, if you have other or different issues to discuss we're happy to oblige.

Ideally, I was hoping that we might be able to schedule a call sometime on May 19 (open the whole day), or May 20 (open from 8:00am-1:30pm or from 4:00pm-5:30pm). Might you/your team have a window of availability in there?

Thanks and hope all is well!

-Tom

Tom Michels

Executive Director

**ONE Future Coalition**

Principal,

**BlueWater Strategies llc**

25 Massachusetts Avenue, NW

Suite 820

Washington, DC 20001

[tmichels@bwstrategies.com](mailto:tmichels@bwstrategies.com)

Direct – 202-589-1759

Office – 202-589-0015

Mobile –202-413-2059

*This message may contain information that is privileged or confidential. If you receive this transmission in error, please notify the sender by reply e-mail and delete the message and any attachments.*

**To:** Franklin, Pamela[Franklin.Pamela@epa.gov]; Gunning, Paul[Gunning.Paul@epa.gov]; Bylin, Carey[Bylin.Carey@epa.gov]  
**Cc:** Mark Boling[Mark\_Boling@SWN.COM]; Jim Bolander[Jim\_Bolander@SWN.COM]; Douglas Jordan[Douglas\_Jordan@SWN.COM]  
**From:** Fiji George  
**Sent:** Fri 5/1/2015 3:40:46 PM  
**Subject:** FW: CCAC Discussion Topic

Carey,

May I share the CCAC TGDs with ONE Future with the full caveat that these that Phil mentions below? There is so much benefit in harmonizing TGDs across all voluntary programs! Especially for SWN since we are part of both programs, it will help us streamline/steer both programs.

*Fiji George*

*Southwestern Energy*

**From:** Philip.Swanson.Affiliate@unep.org [mailto:Philip.Swanson.Affiliate@unep.org]  
**Sent:** Wednesday, April 22, 2015 4:12 PM  
**To:** Jim Bolander  
**Cc:** Bylin, Carey; Douglas Jordan; Fiji George; Mark Boling; dnelson@edf.org; Manfredi.Caltagirone@unep.org  
**Subject:** Re: CCAC Discussion Topic

Hi Jim,

Thanks for your message. I believe I understand the concept of ONE (a target, leaving it up to companies how to get there). In theory, the OGMP membership could change its approach by consensus. But my initial reaction is that this would be quite a major change of approach from the current one and thus a difficult one to make in practice. Agreed, offshore presents a potential challenge to the current list of core sources, but within the current structure one way to handle it is to revise / expand the core list for offshore, e.g., based on work going on now in Norway. Fyi, I'm on vacation now, then in Saudi Arabia next week. (Carey, great if you are able to share your thoughts in the meantime -- see ref to expanded NGS below.)

Regarding sharing the TGDs with ONE members, I think this is fine, as long it is understood these are drafts. It can help share knowledge as well as build interest in the Partnership (I'm sorry that I apparently did not get back to you on this.) But Carey or others, please let me know if you have particular concerns about such sharing at this point. Thanks and best regards,  
Phil

-----Jim Bolander <Jim\_Bolander@SWN.COM> wrote: -----

To: "Bylin, Carey" <[Bylin.Carey@epa.gov](mailto:Bylin.Carey@epa.gov)>, "Philip.Swanson.Affiliate@unep.org" <[Philip.Swanson.Affiliate@unep.org](mailto:Philip.Swanson.Affiliate@unep.org)>  
From: Jim Bolander <[Jim\\_Bolander@SWN.COM](mailto:Jim_Bolander@SWN.COM)>  
Date: 04/22/2015 10:09PM  
Cc: Mark Boling <[Mark\\_Boling@SWN.COM](mailto:Mark_Boling@SWN.COM)>, Fiji George <[Fiji\\_George@SWN.COM](mailto:Fiji_George@SWN.COM)>, Douglas Jordan <[Douglas\\_Jordan@SWN.COM](mailto:Douglas_Jordan@SWN.COM)>  
Subject: CCAC Discussion Topic

Carey and Philip,

After the Steering Committee meeting on April 9<sup>th</sup>, I wanted to follow-up with an option which may help facilitate the implementation process for members with offshore operations and/or both onshore and offshore operations. While many of the nine sources will meet both onshore and offshore requirements there are potential opportunities for offshore operations. As discussed at the meeting, Statoil will be leading a subgroup of the technical committee on developing offshore TGDs. As you are aware, the ONE Future Coalition is currently working with EPA (Carey's team) on developing a performance-based component to the Enhanced Natural Gas Star program which will be a flexible program to determine the most cost-effective pathway to achieve a targeted emissions rate reduction. The technologies employed in the performance intensity based program will be many of the technologies that the TGDs are based but the flexibility allows for members to employ the most cost-effective approach. In fact, CCAC will be collecting production statistics for calculating the coverage of participating assets and therefore an option to incorporate performance-based approach into the CCAC framework is quite reasonable. With the various members within the CCAC Partnership, this methodology may give the members an opportunity to achieve greater reductions across a wider set of operating conditions.

This change can easily be inserted into the Implementation Plan template that the members are currently considering.

I am also following up on Fiji George's request to you to share some of the TGDs (especially Appendix A) with the ONE Future members. We believe there is mutual benefit for both CCAC and ONE Future as TGDs are developed by the respective organizations.

Thank you for your leadership in the program and looking forward to the next face-to-face meeting.

Regards,

Jim

*James L Bolander*  
**Senior Vice President - Resource Development**



**10000 Energy Drive**  
**Spring, Texas 77389**  
**Tel: 832.796.4789**  
**Email: [jbolander@swn.com](mailto:jbolander@swn.com)**

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**From:** Fiji George  
**Location:** MeetingPlace Ex. 6 - Personal Privacy **ID:** Ex. 6 - Personal Privacy  
**Importance:** Normal  
**Subject:** EPA-ONE Future Calls: Finalization of programmatic details related to ONE Future Methane Challenge Commitment Option  
**Start Date/Time:** Mon 4/11/2016 6:30:00 PM  
**End Date/Time:** Mon 4/11/2016 7:00:00 PM  
EPA-ONE Future Next Steps 3-21-16 REVISED (2).docx

.....  
>>>>>

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**To:** Gunning, Paul[Gunning.Paul@epa.gov]  
**Cc:** Bylin, Carey[Bylin.Carey@epa.gov]; Franklin, Pamela[Franklin.Pamela@epa.gov]  
**From:** Hutchins, Thomas D (Tom)  
**Sent:** Fri 4/1/2016 1:45:32 PM  
**Subject:** Re: CONFIDENTIAL AND DELIBERATIVE - Need for a Quick Call

Paul,

I'm sorry we were not able to connect Wednesday or Thursday. I realize you and the team are consumed with the Methane Challenge launch along with the Global Methane Initiative meetings.

I am participating in an INGAA Foundation Meeting this morning. Would you have a few minutes after lunch to discuss a change we are making at ONE Future?

Thomas D. Hutchins  
V.P. EH&S, Kinder Morgan  
Office - 713-420-7918  
Mobile - 713-705-0683

Sent from my iPad

> On Mar 30, 2016, at 7:07 AM, Gunning, Paul <Gunning.Paul@epa.gov> wrote:

>

> Tom does 9 am today work? If so just let us know what number to call

>

> Thanks

>

> Paul

>

> Paul Gunning

> 202-251-1436

> Sent from my iPhone

>

>> On Mar 29, 2016, at 9:29 PM, Hutchins, Thomas D (Tom) <Thomas\_Hutchins@kindermorgan.com> wrote:

>>

>> Paul,

>>

>> We could also do the call Thursday morning if that helps.

>>

>> Thomas D. Hutchins

>> 713-420-7918 Office

>> 713-705-0683 Mobile

>> Thomas\_hutchins@kindermorgan.com<mailto:Thomas\_hutchins@kindermorgan.com>

>> Sent from my iPhone

>>

>> On Mar 29, 2016, at 8:27 PM, Hutchins, Thomas D (Tom)

<Thomas\_Hutchins@kindermorgan.com<mailto:Thomas\_Hutchins@kindermorgan.com>> wrote:

>>

>> Paul,

>>

>> I appreciate the response.

>>

>> It should just take just a few minutes of your time, which I realize is precious right now.

>>

>>  
>> Thomas D. Hutchins  
>> 713-420-7918 Office  
>> 713-705-0683 Mobile  
>> Thomas\_hutchins@kindermorgan.com<mailto:Thomas\_hutchins@kindermorgan.com>  
>> Sent from my iPhone  
>>  
>> On Mar 29, 2016, at 8:10 PM, Gunning, Paul  
<Gunning.Paul@epa.gov<mailto:Gunning.Paul@epa.gov>> wrote:  
>>  
>> Tom good to hear from you. We are swamped with the methane forum but we will look at our  
schedule first thing in the am and get back to you asap  
>>  
>> Paul  
>>  
>>  
>>  
>> Paul Gunning  
>> 202-251-1436  
>> Sent from my iPhone  
>>  
>> On Mar 29, 2016, at 5:21 PM, Hutchins, Thomas D (Tom)  
<Thomas\_Hutchins@kindermorgan.com<mailto:Thomas\_Hutchins@kindermorgan.com>> wrote:  
>>  
>> Carey, Paul and Pamela,  
>>  
>> Are you available for a call tomorrow morning?  
>>  
>> I need to talk with you one a single issue. The call should not last longer the 15-20 minutes.  
>>  
>>  
>> Employee Observations - It's not a gotcha - it's "I've got your back!"  
>>  
>> Driving Continuous Improvements in People Safety and the Environment; Air Quality, Environmental  
Compliance and Remediation.  
>> Thomas D. Hutchins, PE  
>> EH&S VP  
>> Kinder Morgan Natural Gas Pipelines  
>> 713-420-7918 - Office  
>> 713-445-9272 - Fax  
>> 713-705-0683 - Cell  
>> Thomas\_hutchins@kindermorgan.com<mailto:Thomas\_hutchins@kindermorgan.com>  
>>  
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**To:** DeLuca, Isabel[DeLuca.Isabel@epa.gov]  
**Cc:** Bylin, Carey[Bylin.Carey@epa.gov]; Anand Yegnan (Services - 6)[Anand.Yegnan@dom.com]  
**From:** Frank Mack (Services - 6)  
**Sent:** Wed 3/30/2016 4:19:00 PM  
**Subject:** Re: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Thank you again.

Sent from my iPhone

On Mar 30, 2016, at 12:11 PM, DeLuca, Isabel <DeLuca.Isabel@epa.gov> wrote:

Here's the listing:

<https://www3.epa.gov/gasstar/methanechallenge/partners.html>

**From:** Frank Mack (Services - 6) [mailto:frank.mack@dom.com]  
**Sent:** Wednesday, March 30, 2016 11:25 AM  
**To:** DeLuca, Isabel <DeLuca.Isabel@epa.gov>  
**Cc:** Bylin, Carey <Bylin.Carey@epa.gov>; Anand Yegnan (Services - 6) <Anand.Yegnan@dom.com>  
**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

I went to this link at the bottom of the news 5rleawe, expecting to find the list of companies:

Learn more about the Methane Challenge Program and list of founding partner companies:  
<https://www3.epa.gov/gasstar/methanechallenge/>

Thanks

**From:** Frank Mack (Services - 6)

**Sent:** Wednesday, March 30, 2016 11:16 AM  
**To:** 'DeLuca, Isabel'  
**Cc:** Bylin, Carey; Anand Yegnan (Services - 6)  
**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Got it (and found the same just before you sent it) but where would the listing be of all the companies (such as Dominion) who are founding partners?

Thanks

**From:** DeLuca, Isabel [<mailto:DeLuca.Isabel@epa.gov>]  
**Sent:** Wednesday, March 30, 2016 11:13 AM  
**To:** Frank Mack (Services - 6)  
**Cc:** Bylin, Carey; Anand Yegnan (Services - 6)  
**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Apologies—it's a long url and must not have pasted properly.

New url, and entire body of the press release are below:

<https://yosemite.epa.gov/opa/admpress.nsf/bd4379a92ceceecac8525735900400c27/d18d3f2c205f996285257f8>

**EPA Launches New Voluntary Methane Challenge Program To Reduce Emissions from the Oil and Gas Sector**

Release Date: 03/30/2016

Contact Information: Enesta Jones, [jones.enesta@epa.gov](mailto:jones.enesta@epa.gov), 202-564-7873. 202-564-4355

**WASHINGTON**—Today, as part of the Obama Administration's ongoing commitment to take action on climate change and protect public health, EPA is launching a new voluntary partnership program—with 41 founding partner companies in the oil and gas sector. The Natural Gas STAR Methane Challenge Program builds upon the Natural Gas STAR Program, a flexible, voluntary partnership between EPA and the U.S. oil and natural gas industry that focuses on achieving cost-effective methane emission reductions from natural gas operations. Methane is upwards of 25 times more potent than carbon dioxide in warming the planet.

"To protect public health and combat climate change, today, we are expanding our voluntary partnerships to reduce methane emissions from the oil and gas sector through our new Methane Challenge program, which is a platform for companies to transparently report actions to reduce methane emissions and to be publicly recognized as leaders in reducing methane emissions in the United States," said EPA Administrator Gina McCarthy. "The voluntary Methane Challenge program is one important part of our overarching strategy to reduce methane emissions, and complements regulatory efforts that will help the United States meet the Obama Administration's goal of reducing methane emissions by 40 to 45 percent by 2025."

The new program was announced today at the Global Methane Forum, hosted by the [Global Methane Initiative](#) and the [Climate and Clean Air Coalition](#), which has brought together hundreds of policymakers and industry experts from more than 50 countries to discuss strategies to reduce global methane emissions.

The Methane Challenge Program will provide partner companies with a platform to make company-wide commitments to cut emissions from sources within their operations by implementing a suite of best management practices within five years. Transparency is a fundamental part of the program, and partner achievements will be tracked by submitting annual data directly to EPA. Partner companies have committed to replacing or rehabilitating cast iron and unprotected steel distribution mains, and to reducing methane emissions from pipeline blowdowns, among other activities.

The Methane Challenge Program has the potential to achieve significant emissions reductions in a cost-effective way, and is an important component of the Administration's 2014 Methane Strategy, which set out regulatory and voluntary approaches for reducing methane emissions by 40 to 45 percent below 2012 levels by 2025. EPA expects program participation to grow over time and is actively working to expand the options for participation by finalizing an additional Emissions Intensity Commitment option through the ONE Future Coalition. ONE Future is a coalition of natural gas companies focused on increasing efficiency across the natural gas supply chain.

Another key outcome of the Global Methane Forum is the re-chartering of the Global Methane Initiative (GMI) for the next five years. In addition, the Forum has provided an opportunity for the GMI, the Climate and Clean Air Coalition, and the United Nation's Economic Commission for Europe to collaborate in strategically aligning their methane mitigation activities.

The GMI is a partnership of 43 countries, including the United States, aimed at achieving cost-effective methane reductions across five sectors: municipal solid waste, wastewater, agriculture, coal, and the oil and gas sector. Together, GMI's 43 partner countries account for approximately 70 percent of global methane emissions from targeted sources. Since 2004, partner countries avoided nearly 350 MMTCO<sub>2</sub>e in methane emissions from these sources.

Learn more about the Methane Challenge Program and list of founding partner companies:

<https://www3.epa.gov/gasstar/methanechallenge/>

Learn about the Global Methane Initiative:

<https://www.globalmethane.org/>

Learn about the Global Methane Forum:

<https://www.globalmethane.org/forum/index.html>

Learn about the Climate and Clean Air Coalition:

<http://www.ccacoalition.org/>

**From:** Frank Mack (Services - 6) [<mailto:frank.mack@dom.com>]

**Sent:** Wednesday, March 30, 2016 11:10 AM

**To:** DeLuca, Isabel <[DeLuca.Isabel@epa.gov](mailto:DeLuca.Isabel@epa.gov)>

**Cc:** Bylin, Carey <[Bylin.Carey@epa.gov](mailto:Bylin.Carey@epa.gov)>; Anand Yegnan (Services - 6) <[Anand.Yegnan@dom.com](mailto:Anand.Yegnan@dom.com)>

**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Isabel,

The link is not working so could you copy and paste the release in an email?

Thanks

Frank

**From:** DeLuca, Isabel [<mailto:DeLuca.Isabel@epa.gov>]

**Sent:** Wednesday, March 30, 2016 11:08 AM

**To:** Frank Mack (Services - 6)

**Cc:** Bylin, Carey; Anand Yegnan (Services - 6)

**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Hi Frank,

Thanks for the call just now. Our press release has just gone out and can be found here:

<https://yosemite.epa.gov/opa/admpress.nsf/bd4379a92ceceeac8525735900400c27/77e8a4b1fbd553c785257f8>

best wishes,

**Isabel DeLuca**

Director of Communications

Climate Change Division, US EPA

(202) 343-9247

**From:** Frank Mack (Services - 6) [<mailto:frank.mack@dom.com>]  
**Sent:** Monday, March 28, 2016 4:44 PM  
**To:** DeLuca, Isabel <[DeLuca.Isabel@epa.gov](mailto:DeLuca.Isabel@epa.gov)>  
**Cc:** Bylin, Carey <[Bylin.Carey@epa.gov](mailto:Bylin.Carey@epa.gov)>; Anand Yegnan (Services - 6) <[Anand.Yegnan@dom.com](mailto:Anand.Yegnan@dom.com)>  
**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

No problem.

Did not want to assume, so thanks for clarifying.

**From:** DeLuca, Isabel [<mailto:DeLuca.Isabel@epa.gov>]  
**Sent:** Monday, March 28, 2016 4:42 PM  
**To:** Frank Mack (Services - 6)  
**Cc:** Bylin, Carey; Anand Yegnan (Services - 6)  
**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

That's right- sorry not to be more specific. We are planning on issuing a press release at 11 am on Wednesday, March 30.

**From:** Frank Mack (Services - 6) [<mailto:frank.mack@dom.com>]  
**Sent:** Monday, March 28, 2016 4:41 PM  
**To:** DeLuca, Isabel <[DeLuca.Isabel@epa.gov](mailto:DeLuca.Isabel@epa.gov)>  
**Cc:** Bylin, Carey <[Bylin.Carey@epa.gov](mailto:Bylin.Carey@epa.gov)>; Anand Yegnan (Services - 6) <[Anand.Yegnan@dom.com](mailto:Anand.Yegnan@dom.com)>  
**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Isabel,

Just to confirm, that's 11 a.m. on Wednesday, March 30?

Thanks

Frank

**From:** DeLuca, Isabel [<mailto:DeLuca.Isabel@epa.gov>]  
**Sent:** Monday, March 28, 2016 4:38 PM  
**To:** Frank Mack (Services - 6)  
**Cc:** Bylin, Carey; Anand Yegnan (Services - 6)  
**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Hi,

Thanks for your note. Yes we are planning on issuing a news release at 11 am. Please let me know if you have any other questions.

Best,

Isabel DeLuca

Director of Communications

Climate Change Division, US EPA

(202) 343-9247

**From:** Frank Mack (Services - 6) [<mailto:frank.mack@dom.com>]

**Sent:** Monday, March 28, 2016 4:34 PM

**To:** DeLuca, Isabel <[DeLuca.Isabel@epa.gov](mailto:DeLuca.Isabel@epa.gov)>

**Cc:** Bylin, Carey <[Bylin.Carey@epa.gov](mailto:Bylin.Carey@epa.gov)>; Anand Yegnan (Services - 6) <[Anand.Yegnan@dom.com](mailto:Anand.Yegnan@dom.com)>

**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Isabel,

I spoke with Anand who said I should follow up with you to see if the EAP is planning to issue a news release announcing the Natural Gas STAR Methane Challenge Program?

If so, what is the timing?

Please advise

Thanks

Frank Mack, APR

Manager-Dominion Transmission Communications

Dominion Energy

804.771.3141 (tie 736) (work)

804.385.8755 (cell)

[www.dom.com](http://www.dom.com)

**From:** Anand Yegnan (Services - 6)

**Sent:** Monday, March 28, 2016 3:52 PM

**To:** Frank Mack (Services - 6)

**Subject:** FW: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Frank – Would you be able to reach out to EPA’s communication person and get more information?

Please see contact information for the EPA person.

-Anand

**From:** Bylin, Carey [<mailto:Bylin.Carey@epa.gov>]

**Sent:** Monday, March 28, 2016 3:49 PM

**To:** Anand Yegnan (Services - 6)

**Cc:** DeLuca, Isabel

**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Hi Anand,

Our communications contact is Isabel DeLuca, who is cc'd on this e-mail.

---

Ms. Carey Bylin

International Programs Leader, Oil and Gas

Natural Gas STAR Program

Global Methane Initiative

U.S. Environmental Protection Agency

Phone: +1-202-343-9669

Visiting Address & Private Deliveries (courier, FedEx etc.)

1201 Constitution Ave NW, Room Number 4353 UU, Washington DC 20004

U.S. Mail Address:

Mail Code 6207M, 1200 Pennsylvania Ave NW, Washington DC 20460

<image001.gif>

**From:** Anand Yegnan (Services - 6) [<mailto:Anand.Yegnan@dom.com>]

**Sent:** Monday, March 28, 2016 3:45 PM

**To:** Bylin, Carey <[Bylin.Carey@epa.gov](mailto:Bylin.Carey@epa.gov)>

**Subject:** FW: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Hi Carey – Our media relations folks would like to know if EPA was planning on doing a media release of the Methane Challenge announcement. Is there a media relations person at EPA that I can connect with our media person? Please advise.

Thank you.

-Anand

**From:** Anand Yegnan (Services - 6)  
**Sent:** Monday, March 28, 2016 12:08 PM  
**To:** 'Bylin, Carey'  
**Cc:** 'Elina Bouloubasis'; Pryor, Justin; Pamela Faggert (Services - 6)  
**Subject:** Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Hello Carey –

Attached please find Dominion Transmission Inc.'s partnership agreement for the Methane Challenge Program.

Also enclosed is the bio for Dominion.

**Dominion will be represented by:**

Jeff Murphy

Title: Vice President and General Manager – Dominion East Ohio

Contact Information: [jeff.murphy@dom.com](mailto:jeff.murphy@dom.com)

Office: (216) 736-6376

Contact information for person coordinating the company's participation in Methane Challenge (as we have two separate partnership agreements with different company representatives):

Anand Yegnan

Manager – Environmental Regulations.

[Anand.yegnan@dom.com](mailto:Anand.yegnan@dom.com)

(804) 273-3893

Dominion website Link: [www.dom.com](http://www.dom.com)

**Dominion Bio for introduction at the Launch event is below:**

Dominion's distribution companies — Dominion East Ohio and Dominion Hope — operate more than 22,000 miles of natural gas pipeline and serve 1.3 million customers in Ohio and West Virginia. Dominion Transmission's system operates 7,800 miles of interstate pipeline in six states and one of the largest natural gas storage systems in the U.S.

Dominion's distribution companies will implement a continuous program to measure, track and report methane reductions obtained by annually replacing well over a hundred miles of cast iron and unprotected or ineffectively coated-steel pipelines on mains and service lines.

Dominion Transmission will proactively reduce significant methane emissions by enhancing its ongoing pipeline blow-down reduction efforts used during maintenance activities.

Participation in this program is consistent with Dominion's commitment to achieving sustainable environmental improvements while at the same time operating our businesses in a safe and reliable manner.

We recommend that Dominion be listed as the following on the Methane Challenge website:

**Distribution Segment:** Dominion Distribution – Dominion East Ohio & Dominion Hope

**Transmission Segment:** Dominion Transmission Inc.

Please let me know if you have any questions. Please confirm that you have received this

information – as I know you are swamped with planning for the Methane Challenge event.

Thank you.

Regards,

Anand Yegnan

**From:** Bylin, Carey

**Sent:** Wednesday, March 23, 2016 4:44 PM

**To:** 'Anand Yegnan (Services - 6)' <[Anand.Yegnan@dom.com](mailto:Anand.Yegnan@dom.com)>

**Cc:** 'Elina Bouloubasis' <[Elina.Bouloubasis@erg.com](mailto:Elina.Bouloubasis@erg.com)>; Pryor, Justin  
<[Pryor.Justin@epa.gov](mailto:Pryor.Justin@epa.gov)>

**Subject:** Methane Challenge

Hello Anand,

Good talking to you just now. I apologize that you did not receive our e-mail last week – attached below is the content for your reference.

As mentioned, please reply stating your intention to join as a founding partner and indicating anticipated timeframes for sending the signed Partnership Agreement(s) and remaining information, as per the message below.

We look forward to working with you on this!

On behalf of the U.S. Environmental Protection Agency (EPA), I am pleased to hear of your interest in joining the Natural Gas STAR Methane Challenge Program as a founding partner. We will be officially launching this new program at the Global Methane Forum (GMF) at 10:00am on March 30, 2016 in Washington, D.C.

The launch event will be hosted by Janet McCabe, EPA's Acting Assistant Administrator for Air and Radiation. If you confirm your participation as a founding partner, we encourage you to attend this exciting event. We will recognize your company even if you are not able to participate in person. Please be aware of the following next steps:

- By March 23, please contact us (see contact information below) to confirm that you will be joining as a founding partner, and provide your signed Partnership Agreement.
- Provide us a short bio (approximately 75 words) describing your company, your commitments, and highlighting reasons for becoming a Methane Challenge partner.
- If your company plans to attend the Launch Event, provide the name, title, and contact information of the person who will be representing your company at the event and, if different, the contact information for the individual coordinating your company's participation at the event.
- Also, by March 23, please provide a link to your company's website as well as the specific way your company should be listed on the Methane Challenge Program website.
- Be sure to register for the GMF as soon as possible (<http://globalmethane.org/forum/>).

Please send the above information to myself and Elina Bouloubasis ([elina.bouloubasis@erg.com](mailto:elina.bouloubasis@erg.com)). Once we receive confirmation of your participation, we will provide more specific details about the launch event agenda, which will include recognition of each partner and individual and group photos. Please note that due to time constraints, we do not anticipate that partner companies will be able to give individual remarks at the event.

As a new Methane Challenge Program partner, there are a few next steps to be aware of. Within six months after joining the Program, each partner must develop an Implementation Plan to provide details on their planned participation, such as anticipated rate of progress, key milestones, and other relevant context. See the following Guidelines document for more information about how to develop an Implementation Plan:

[http://www3.epa.gov/gasstar/documents/MC\\_IP\\_Guidelines\\_Final.pdf](http://www3.epa.gov/gasstar/documents/MC_IP_Guidelines_Final.pdf).

We will also be working with partners as we develop the Program's reporting system, and will be seeking input and feedback in the coming months. Finally, in an effort to further highlight our partners' accomplishments, we aim to work with partners to develop "Fact Sheets" that cover notable historical actions taken in advance of the Methane Challenge Program in efforts to mitigate methane emissions.

We encourage you to attend the full GMF event that will offer high-level plenary sessions on cross-cutting issues such as project financing, joint Global Methane Initiative (GMI)-Climate & Clean Air Coalition (CCAC) discussions on projects and policy, and ample opportunities for networking with methane experts in the public and private sectors from around the world. A draft agenda is available at <http://globalmethane.org/forum/>. We hope you are able to attend and participate in the sessions.

Please feel free to contact me or Justin Pryor (202-343-9258 or [pryor.justin@epa.gov](mailto:pryor.justin@epa.gov)) with any questions you may have about the Methane Challenge Partnership. Please contact Elina Bouloubasis (703-373-0149 or [elina.bouloubasis@erg.com](mailto:elina.bouloubasis@erg.com)) with any questions about the launch event. Thank you again for your support of the Methane Challenge Program and we hope to see you at the launch event in Washington, D.C.

Sincerely,

Ms. Carey Bylin

U.S. Environmental Protection Agency

202-343-9669

[bylin.carey@epa.gov](mailto:bylin.carey@epa.gov)

---

Ms. Carey Bylin

International Programs Leader, Oil and Gas

Natural Gas STAR Program

Global Methane Initiative

U.S. Environmental Protection Agency

Phone: +1-202-343-9669

Visiting Address & Private Deliveries (courier, FedEx etc.)

1201 Constitution Ave NW, Room Number 4353 UU, Washington DC 20004

U.S. Mail Address:

Mail Code 6207M, 1200 Pennsylvania Ave NW, Washington DC 20460

<image001.gif>

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---

**To:** DeLuca, Isabel[DeLuca.Isabel@epa.gov]  
**Cc:** Bylin, Carey[Bylin.Carey@epa.gov]; Anand Yegnan (Services - 6)[Anand.Yegnan@dom.com]  
**From:** Frank Mack (Services - 6)  
**Sent:** Wed 3/30/2016 3:24:40 PM  
**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

I went to this link at the bottom of the news 5rleawe, expecting to find the list of companies:

Learn more about the Methane Challenge Program and list of founding partner companies:  
<https://www3.epa.gov/gasstar/methanechallenge/>

Thanks

**From:** Frank Mack (Services - 6)  
**Sent:** Wednesday, March 30, 2016 11:16 AM  
**To:** 'DeLuca, Isabel'  
**Cc:** Bylin, Carey; Anand Yegnan (Services - 6)  
**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Got it (and found the same just before you sent it) but where would the listing be of all the companies (such as Dominion) who are founding partners?

Thanks

**From:** DeLuca, Isabel [<mailto:DeLuca.Isabel@epa.gov>]  
**Sent:** Wednesday, March 30, 2016 11:13 AM  
**To:** Frank Mack (Services - 6)  
**Cc:** Bylin, Carey; Anand Yegnan (Services - 6)  
**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Apologies—it's a long url and must not have pasted properly.

New url, and entire body of the press release are below:

<https://yosemite.epa.gov/opa/admpress.nsf/bd4379a92ceceecac8525735900400c27/d18d3f2c205f996285257f860>

## **EPA Launches New Voluntary Methane Challenge Program To Reduce Emissions from the Oil and Gas Sector**

Release Date: 03/30/2016

Contact Information: Enesta Jones, [jones.enesta@epa.gov](mailto:jones.enesta@epa.gov), 202-564-7873. 202-564-4355

**WASHINGTON**—Today, as part of the Obama Administration's ongoing commitment to take action on climate change and protect public health, EPA is launching a new voluntary partnership program—with 41 founding partner companies in the oil and gas sector. The Natural Gas STAR Methane Challenge Program builds upon the Natural Gas STAR Program, a flexible, voluntary partnership between EPA and the U.S. oil and natural gas industry that focuses on achieving cost-effective methane emission reductions from natural gas operations. Methane is upwards of 25 times more potent than carbon dioxide in warming the planet.

"To protect public health and combat climate change, today, we are expanding our voluntary partnerships to reduce methane emissions from the oil and gas sector through our new Methane Challenge program, which is a platform for companies to transparently report actions to reduce methane emissions and to be publicly recognized as leaders in reducing methane emissions in the United States," said EPA Administrator Gina McCarthy. "The voluntary Methane Challenge program is one important part of our overarching strategy to reduce methane emissions, and complements regulatory efforts that will help the United States meet the Obama Administration's goal of reducing methane emissions by 40 to 45 percent by 2025."

The new program was announced today at the Global Methane Forum, hosted by the [Global Methane Initiative](#) and the [Climate and Clean Air Coalition](#), which has brought together hundreds of policymakers and industry experts from more than 50 countries to discuss strategies to reduce global methane emissions.

The Methane Challenge Program will provide partner companies with a platform to make company-wide commitments to cut emissions from sources within their operations by implementing a suite of best management practices within five years. Transparency is a fundamental part of the program, and partner achievements will be tracked by submitting annual data directly to EPA. Partner companies have committed to replacing or rehabilitating cast iron and unprotected steel distribution mains, and to reducing methane emissions from pipeline blowdowns, among other activities.

The Methane Challenge Program has the potential to achieve significant emissions reductions in a cost-effective way, and is an important component of the Administration's 2014 Methane Strategy, which set out regulatory and voluntary approaches for reducing methane emissions by 40 to 45 percent below 2012 levels by 2025. EPA expects program participation to grow over time and is actively working to expand the options for participation by finalizing an additional Emissions Intensity Commitment option through the ONE Future Coalition. ONE Future is a coalition of natural gas companies focused on increasing efficiency across the natural gas supply chain.

Another key outcome of the Global Methane Forum is the re-chartering of the Global Methane Initiative (GMI) for the next five years. In addition, the Forum has provided an opportunity for the GMI, the Climate and Clean Air Coalition, and the United Nation's Economic Commission for Europe to collaborate in strategically aligning their methane mitigation activities.

The GMI is a partnership of 43 countries, including the United States, aimed at achieving cost-effective methane reductions across five sectors: municipal solid waste, wastewater, agriculture, coal, and the oil and gas sector. Together, GMI's 43 partner countries account for approximately 70 percent of global methane emissions from

targeted sources. Since 2004, partner countries avoided nearly 350 MMTCO<sub>2</sub>e in methane emissions from these sources.

Learn more about the Methane Challenge Program and list of founding partner companies:

<https://www3.epa.gov/gasstar/methanechallenge/>

Learn about the Global Methane Initiative:

<https://www.globalmethane.org/>

Learn about the Global Methane Forum:

<https://www.globalmethane.org/forum/index.html>

Learn about the Climate and Clean Air Coalition:

<http://www.ccacoalition.org/>

**From:** Frank Mack (Services - 6) [<mailto:frank.mack@dom.com>]

**Sent:** Wednesday, March 30, 2016 11:10 AM

**To:** DeLuca, Isabel <[DeLuca.Isabel@epa.gov](mailto:DeLuca.Isabel@epa.gov)>

**Cc:** Bylin, Carey <[Bylin.Carey@epa.gov](mailto:Bylin.Carey@epa.gov)>; Anand Yegnan (Services - 6)

<[Anand.Yegnan@dom.com](mailto:Anand.Yegnan@dom.com)>

**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Isabel,

The link is not working so could you copy and paste the release in an email?

Thanks

Frank

**From:** DeLuca, Isabel [<mailto:DeLuca.Isabel@epa.gov>]

**Sent:** Wednesday, March 30, 2016 11:08 AM

**To:** Frank Mack (Services - 6)

**Cc:** Bylin, Carey; Anand Yegnan (Services - 6)

**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Hi Frank,

Thanks for the call just now. Our press release has just gone out and can be found here:

<https://yosemite.epa.gov/opa/admpress.nsf/bd4379a92ceceeac8525735900400c27/77e8a4b1fbd553c785257f850>

best wishes,

**Isabel DeLuca**

Director of Communications

Climate Change Division, US EPA

(202) 343-9247

**From:** Frank Mack (Services - 6) [<mailto:frank.mack@dom.com>]

**Sent:** Monday, March 28, 2016 4:44 PM

**To:** DeLuca, Isabel <[DeLuca.Isabel@epa.gov](mailto:DeLuca.Isabel@epa.gov)>

**Cc:** Bylin, Carey <[Bylin.Carey@epa.gov](mailto:Bylin.Carey@epa.gov)>; Anand Yegnan (Services - 6) <[Anand.Yegnan@dom.com](mailto:Anand.Yegnan@dom.com)>

**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

No problem.

Did not want to assume, so thanks for clarifying.

**From:** DeLuca, Isabel [<mailto:DeLuca.Isabel@epa.gov>]  
**Sent:** Monday, March 28, 2016 4:42 PM  
**To:** Frank Mack (Services - 6)  
**Cc:** Bylin, Carey; Anand Yegnan (Services - 6)  
**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

That's right- sorry not to be more specific. We are planning on issuing a press release at 11 am on Wednesday, March 30.

**From:** Frank Mack (Services - 6) [<mailto:frank.mack@dom.com>]  
**Sent:** Monday, March 28, 2016 4:41 PM  
**To:** DeLuca, Isabel <[DeLuca.Isabel@epa.gov](mailto:DeLuca.Isabel@epa.gov)>  
**Cc:** Bylin, Carey <[Bylin.Carey@epa.gov](mailto:Bylin.Carey@epa.gov)>; Anand Yegnan (Services - 6) <[Anand.Yegnan@dom.com](mailto:Anand.Yegnan@dom.com)>  
**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Isabel,

Just to confirm, that's 11 a.m. on Wednesday, March 30?

Thanks

Frank

**From:** DeLuca, Isabel [<mailto:DeLuca.Isabel@epa.gov>]  
**Sent:** Monday, March 28, 2016 4:38 PM  
**To:** Frank Mack (Services - 6)  
**Cc:** Bylin, Carey; Anand Yegnan (Services - 6)

**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Hi,

Thanks for your note. Yes we are planning on issuing a news release at 11 am. Please let me know if you have any other questions.

Best,

**Isabel DeLuca**

Director of Communications

Climate Change Division, US EPA

(202) 343-9247

**From:** Frank Mack (Services - 6) [<mailto:frank.mack@dom.com>]

**Sent:** Monday, March 28, 2016 4:34 PM

**To:** DeLuca, Isabel <[DeLuca.Isabel@epa.gov](mailto:DeLuca.Isabel@epa.gov)>

**Cc:** Bylin, Carey <[Bylin.Carey@epa.gov](mailto:Bylin.Carey@epa.gov)>; Anand Yegnan (Services - 6) <[Anand.Yegnan@dom.com](mailto:Anand.Yegnan@dom.com)>

**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Isabel,

I spoke with Anand who said I should follow up with you to see if the EAP is planning to issue a news release announcing the Natural Gas STAR Methane Challenge Program?

If so, what is the timing?

Please advise

Thanks

Frank Mack, APR

Manager-Dominion Transmission Communications

Dominion Energy

804.771.3141 (tie 736) (work)

804.385.8755 (cell)

[www.dom.com](http://www.dom.com)

**From:** Anand Yegnan (Services - 6)

**Sent:** Monday, March 28, 2016 3:52 PM

**To:** Frank Mack (Services - 6)

**Subject:** FW: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Frank – Would you be able to reach out to EPA's communication person and get more information?

Please see contact information for the EPA person.

-Anand

**From:** Bylin, Carey [<mailto:Bylin.Carey@epa.gov>]  
**Sent:** Monday, March 28, 2016 3:49 PM  
**To:** Anand Yegnan (Services - 6)  
**Cc:** DeLuca, Isabel  
**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Hi Anand,

Our communications contact is Isabel Deluca, who is cc'd on this e-mail.

---

Ms. Carey Bylin

International Programs Leader, Oil and Gas

Natural Gas STAR Program

Global Methane Initiative

U.S. Environmental Protection Agency

Phone: +1-202-343-9669

Visiting Address & Private Deliveries (courier, FedEx etc.)

1201 Constitution Ave NW, Room Number 4353 UU, Washington DC 20004

U.S. Mail Address:

Mail Code 6207M, 1200 Pennsylvania Ave NW, Washington DC 20460



**From:** Anand Yegnan (Services - 6) [<mailto:Anand.Yegnan@dom.com>]  
**Sent:** Monday, March 28, 2016 3:45 PM  
**To:** Bylin, Carey <[Bylin.Carey@epa.gov](mailto:Bylin.Carey@epa.gov)>  
**Subject:** FW: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Hi Carey – Our media relations folks would like to know if EPA was planning on doing a media release of the Methane Challenge announcement. Is there a media relations person at EPA that I can connect with our media person? Please advise.

Thank you.

-Anand

**From:** Anand Yegnan (Services - 6)  
**Sent:** Monday, March 28, 2016 12:08 PM  
**To:** 'Bylin, Carey'  
**Cc:** 'Elina Bouloubasis'; Pryor, Justin; Pamela Faggert (Services - 6)  
**Subject:** Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Hello Carey –

Attached please find Dominion Transmission Inc.'s partnership agreement for the Methane Challenge Program.

Also enclosed is the bio for Dominion.

**Dominion will be represented by:**

Jeff Murphy

Title: Vice President and General Manager – Dominion East Ohio

Contact Information: [jeff.murphy@dom.com](mailto:jeff.murphy@dom.com)

Office: (216) 736-6376

Contact information for person coordinating the company's participation in Methane Challenge (as we have two separate partnership agreements with different company representatives):

Anand Yegnan

Manager – Environmental Regulations.

[Anand.yegnan@dom.com](mailto:Anand.yegnan@dom.com)

(804) 273-3893

Dominion website Link: [www.dom.com](http://www.dom.com)

**Dominion Bio for introduction at the Launch event is below:**

Dominion's distribution companies — Dominion East Ohio and Dominion Hope — operate more than 22,000 miles of natural gas pipeline and serve 1.3 million customers in Ohio and West Virginia. Dominion Transmission's system operates 7,800 miles of interstate pipeline in six states and one of the largest natural gas storage systems in the U.S.

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Participation in this program is consistent with Dominion's commitment to achieving sustainable environmental improvements while at the same time operating our businesses in a safe and reliable manner.

We recommend that Dominion be listed as the following on the Methane Challenge website:

**Distribution Segment:** Dominion Distribution – Dominion East Ohio & Dominion Hope

**Transmission Segment:** Dominion Transmission Inc.

Please let me know if you have any questions. Please confirm that you have received this information – as I know you are swamped with planning for the Methane Challenge event.

Thank you.

Regards,

Anand Yegnan

**From:** Bylin, Carey

**Sent:** Wednesday, March 23, 2016 4:44 PM

**To:** 'Anand Yegnan (Services - 6)' <[Anand.Yegnan@dom.com](mailto:Anand.Yegnan@dom.com)>

**Cc:** 'Elina Bouloubasis' <[Elina.Bouloubasis@erg.com](mailto:Elina.Bouloubasis@erg.com)>; Pryor, Justin <[Pryor.Justin@epa.gov](mailto:Pryor.Justin@epa.gov)>

**Subject:** Methane Challenge

Hello Anand,

Good talking to you just now. I apologize that you did not receive our e-mail last week – attached below is the content for your reference.

As mentioned, please reply stating your intention to join as a founding partner and indicating anticipated timeframes for sending the signed Partnership Agreement(s) and remaining information, as per the message below.

We look forward to working with you on this!

On behalf of the U.S. Environmental Protection Agency (EPA), I am pleased to hear of your interest in joining the Natural Gas STAR Methane Challenge Program as a founding partner. We will be officially launching this new program at the Global Methane Forum (GMF) at 10:00am on March 30, 2016 in Washington, D.C.

The launch event will be hosted by Janet McCabe, EPA's Acting Assistant Administrator for Air and Radiation. If you confirm your participation as a founding partner, we encourage you to attend this exciting event. We will recognize your company even if you are not able to participate in person. Please be aware of the following next steps:

- By March 23, please contact us (see contact information below) to confirm that you will be joining as a founding partner, and provide your signed Partnership Agreement.
- Provide us a short bio (approximately 75 words) describing your company, your commitments, and highlighting reasons for becoming a Methane Challenge partner.
- If your company plans to attend the Launch Event, provide the name, title, and contact information of the person who will be representing your company at the event and, if different, the contact information for the individual coordinating your company's participation at the event.
- Also, by March 23, please provide a link to your company's website as well as the specific way your company should be listed on the Methane Challenge Program website.

- Be sure to register for the GMF as soon as possible (<http://globalmethane.org/forum/>).

Please send the above information to myself and Elina Bouloubasis ([elina.bouloubasis@erg.com](mailto:elina.bouloubasis@erg.com)). Once we receive confirmation of your participation, we will provide more specific details about the launch event agenda, which will include recognition of each partner and individual and group photos. Please note that due to time constraints, we do not anticipate that partner companies will be able to give individual remarks at the event.

As a new Methane Challenge Program partner, there are a few next steps to be aware of. Within six months after joining the Program, each partner must develop an Implementation Plan to provide details on their planned participation, such as anticipated rate of progress, key milestones, and other relevant context. See the following Guidelines document for more information about how to develop an Implementation Plan:

[http://www3.epa.gov/gasstar/documents/MC\\_IP\\_Guidelines\\_Final.pdf](http://www3.epa.gov/gasstar/documents/MC_IP_Guidelines_Final.pdf).

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We encourage you to attend the full GMF event that will offer high-level plenary sessions on cross-cutting issues such as project financing, joint Global Methane Initiative (GMI)-Climate & Clean Air Coalition (CCAC) discussions on projects and policy, and ample opportunities for networking with methane experts in the public and private sectors from around the world. A draft agenda is available at <http://globalmethane.org/forum/>. We hope you are able to attend and participate in the sessions.

Please feel free to contact me or Justin Pryor (202-343-9258 or [pryor.justin@epa.gov](mailto:pryor.justin@epa.gov)) with any questions you may have about the Methane Challenge Partnership. Please contact Elina Bouloubasis (703-373-0149 or [elina.bouloubasis@erg.com](mailto:elina.bouloubasis@erg.com)) with any questions about the launch event. Thank you again for your support of the Methane Challenge Program and we hope to see you at the launch event in Washington, D.C.

Sincerely,

Ms. Carey Bylin

U.S. Environmental Protection Agency

202-343-9669

[bylin.carey@epa.gov](mailto:bylin.carey@epa.gov)

---

Ms. Carey Bylin

International Programs Leader, Oil and Gas

Natural Gas STAR Program

Global Methane Initiative

U.S. Environmental Protection Agency

Phone: +1-202-343-9669

Visiting Address & Private Deliveries (courier, FedEx etc.)

1201 Constitution Ave NW, Room Number 4353 UU, Washington DC 20004

U.S. Mail Address:

Mail Code 6207M, 1200 Pennsylvania Ave NW, Washington DC 20460

**To:** DeLuca, Isabel[DeLuca.Isabel@epa.gov]  
**Cc:** Bylin, Carey[Bylin.Carey@epa.gov]; Anand Yegnan (Services - 6)[Anand.Yegnan@dom.com]  
**From:** Frank Mack (Services - 6)  
**Sent:** Wed 3/30/2016 3:15:46 PM  
**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Got it (and found the same just before you sent it) but where would the listing be of all the companies (such as Dominion) who are founding partners?

Thanks

**From:** DeLuca, Isabel [mailto:DeLuca.Isabel@epa.gov]  
**Sent:** Wednesday, March 30, 2016 11:13 AM  
**To:** Frank Mack (Services - 6)  
**Cc:** Bylin, Carey; Anand Yegnan (Services - 6)  
**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Apologies—it's a long url and must not have pasted properly.

New url, and entire body of the press release are below:

<https://yosemite.epa.gov/opa/admpress.nsf/bd4379a92ceceecac8525735900400c27/d18d3f2c205f996285257f860>

**EPA Launches New Voluntary Methane Challenge Program To Reduce Emissions from the Oil and Gas Sector**

Release Date: 03/30/2016

Contact Information: Enesta Jones, [jones.enesta@epa.gov](mailto:jones.enesta@epa.gov), 202-564-7873. 202-564-4355

**WASHINGTON**—Today, as part of the Obama Administration's ongoing commitment to take action on climate change and protect public health, EPA is launching a new voluntary partnership program—with 41 founding partner companies in the oil and gas sector. The Natural Gas STAR Methane Challenge Program builds upon the Natural Gas STAR Program, a flexible, voluntary partnership between EPA and the U.S. oil and natural gas industry that focuses on achieving cost-effective methane emission reductions from natural gas operations. Methane is upwards of 25 times more potent than carbon dioxide in warming the planet.

"To protect public health and combat climate change, today, we are expanding our voluntary partnerships to reduce methane emissions from the oil and gas sector through our new Methane Challenge program, which is a platform for companies to transparently report actions to reduce methane emissions and to be publicly recognized as leaders in reducing methane emissions in the United States," said EPA Administrator Gina McCarthy. "The voluntary Methane Challenge program is one important part of our overarching strategy to reduce methane emissions, and complements regulatory efforts that will help the United States meet the Obama Administration's goal of reducing methane emissions by 40 to 45 percent by 2025."

The new program was announced today at the Global Methane Forum, hosted by the [Global Methane Initiative](#) and the [Climate and Clean Air Coalition](#), which has brought together hundreds of policymakers and industry experts from more than 50 countries to discuss strategies to reduce global methane emissions.

The Methane Challenge Program will provide partner companies with a platform to make company-wide commitments to cut emissions from sources within their operations by implementing a suite of best management practices within five years. Transparency is a fundamental part of the program, and partner achievements will be tracked by submitting annual data directly to EPA. Partner companies have committed to replacing or rehabilitating cast iron and unprotected steel distribution mains, and to reducing methane emissions from pipeline blowdowns, among other activities.

The Methane Challenge Program has the potential to achieve significant emissions reductions in a cost-effective way, and is an important component of the Administration's 2014 Methane Strategy, which set out regulatory and voluntary approaches for reducing methane emissions by 40 to 45 percent below 2012 levels by 2025. EPA expects program participation to grow over time and is actively working to expand the options for participation by finalizing an additional Emissions Intensity Commitment option through the ONE Future Coalition. ONE Future is a coalition of natural gas companies focused on increasing efficiency across the natural gas supply chain.

Another key outcome of the Global Methane Forum is the re-chartering of the Global Methane Initiative (GMI) for the next five years. In addition, the Forum has provided an opportunity for the GMI, the Climate and Clean Air Coalition, and the United Nation's Economic Commission for Europe to collaborate in strategically aligning their methane mitigation activities.

The GMI is a partnership of 43 countries, including the United States, aimed at achieving cost-effective methane reductions across five sectors: municipal solid waste, wastewater, agriculture, coal, and the oil and gas sector. Together, GMI's 43 partner countries account for approximately 70 percent of global methane emissions from targeted sources. Since 2004, partner countries avoided nearly 350 MMTCO<sub>2e</sub> in methane emissions from these sources.

Learn more about the Methane Challenge Program and list of founding partner companies:  
<https://www3.epa.gov/gasstar/methanechallenge/>

Learn about the Global Methane Initiative:  
<https://www.globalmethane.org/>

Learn about the Global Methane Forum:  
<https://www.globalmethane.org/forum/index.html>

Learn about the Climate and Clean Air Coalition:  
<http://www.ccacoalition.org/>

**From:** Frank Mack (Services - 6) [<mailto:frank.mack@dom.com>]

**Sent:** Wednesday, March 30, 2016 11:10 AM

**To:** DeLuca, Isabel <[DeLuca.Isabel@epa.gov](mailto:DeLuca.Isabel@epa.gov)>

**Cc:** Bylin, Carey <[Bylin.Carey@epa.gov](mailto:Bylin.Carey@epa.gov)>; Anand Yegnan (Services - 6) <[Anand.Yegnan@dom.com](mailto:Anand.Yegnan@dom.com)>

**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

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best wishes,

**Isabel DeLuca**

Director of Communications

Climate Change Division, US EPA

(202) 343-9247

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If so, what is the timing?

Please advise

Thanks

Frank Mack, APR

Manager-Dominion Transmission Communications

Dominion Energy

804.771.3141 (tie 736) (work)

804.385.8755 (cell)

[www.dom.com](http://www.dom.com)

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Please see contact information for the EPA person.

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Hi Anand,

Our communications contact is Isabel Deluca, who is cc'd on this e-mail.

---

Ms. Carey Bylin

International Programs Leader, Oil and Gas

Natural Gas STAR Program

Global Methane Initiative

U.S. Environmental Protection Agency

Phone: +1-202-343-9669

Visiting Address & Private Deliveries (courier, FedEx etc.)

1201 Constitution Ave NW, Room Number 4353 UU, Washington DC 20004

U.S. Mail Address:

Mail Code 6207M, 1200 Pennsylvania Ave NW, Washington DC 20460



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Thank you.

-Anand

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**Sent:** Monday, March 28, 2016 12:08 PM  
**To:** 'Bylin, Carey'  
**Cc:** 'Elina Bouloubasis'; Pryor, Justin; Pamela Faggert (Services - 6)  
**Subject:** Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

Hello Carey –

Attached please find Dominion Transmission Inc.'s partnership agreement for the Methane Challenge Program.

Also enclosed is the bio for Dominion.

**Dominion will be represented by:**

Jeff Murphy

Title: Vice President and General Manager – Dominion East Ohio

Contact Information: [jeff.murphy@dom.com](mailto:jeff.murphy@dom.com)

Office: (216) 736-6376

Contact information for person coordinating the company's participation in Methane Challenge (as we have two separate partnership agreements with different company representatives):

Anand Yegnan

Manager – Environmental Regulations.

[Anand.yegnan@dom.com](mailto:Anand.yegnan@dom.com)

(804) 273-3893

Dominion website Link: [www.dom.com](http://www.dom.com)

**Dominion Bio for introduction at the Launch event is below:**

Dominion's distribution companies — Dominion East Ohio and Dominion Hope — operate more than 22,000 miles of natural gas pipeline and serve 1.3 million customers in Ohio and West Virginia. Dominion Transmission's system operates 7,800 miles of interstate pipeline in six states and one of the largest natural gas storage systems in the U.S.

Dominion's distribution companies will implement a continuous program to measure, track and report methane reductions obtained by annually replacing well over a hundred miles of cast iron and unprotected or ineffectively coated-steel pipelines on mains and service lines.

Dominion Transmission will proactively reduce significant methane emissions by enhancing its ongoing pipeline blow-down reduction efforts used during maintenance activities.

Participation in this program is consistent with Dominion's commitment to achieving sustainable environmental improvements while at the same time operating our businesses in a safe and reliable manner.

We recommend that Dominion be listed as the following on the Methane Challenge website:

**Distribution Segment:** Dominion Distribution – Dominion East Ohio & Dominion Hope

**Transmission Segment:** Dominion Transmission Inc.

Please let me know if you have any questions. Please confirm that you have received this information – as I know you are swamped with planning for the Methane Challenge event.

Thank you.

Regards,

Anand Yegnan

**From:** Bylin, Carey

**Sent:** Wednesday, March 23, 2016 4:44 PM

**To:** 'Anand Yegnan (Services - 6)' <[Anand.Yegnan@dom.com](mailto:Anand.Yegnan@dom.com)>

**Cc:** 'Elina Bouloubasis' <[Elina.Bouloubasis@erg.com](mailto:Elina.Bouloubasis@erg.com)>; Pryor, Justin <[Pryor.Justin@epa.gov](mailto:Pryor.Justin@epa.gov)>

**Subject:** Methane Challenge

Hello Anand,

Good talking to you just now. I apologize that you did not receive our e-mail last week – attached below is the content for your reference.

As mentioned, please reply stating your intention to join as a founding partner and indicating anticipated timeframes for sending the signed Partnership Agreement(s) and remaining information, as per the message below.

We look forward to working with you on this!

On behalf of the U.S. Environmental Protection Agency (EPA), I am pleased to hear of your interest in joining the Natural Gas STAR Methane Challenge Program as a founding partner. We will be officially launching this new program at the Global Methane Forum (GMF) at 10:00am

on March 30, 2016 in Washington, D.C.

The launch event will be hosted by Janet McCabe, EPA's Acting Assistant Administrator for Air and Radiation. If you confirm your participation as a founding partner, we encourage you to attend this exciting event. We will recognize your company even if you are not able to participate in person. Please be aware of the following next steps:

- By March 23, please contact us (see contact information below) to confirm that you will be joining as a founding partner, and provide your signed Partnership Agreement.
- Provide us a short bio (approximately 75 words) describing your company, your commitments, and highlighting reasons for becoming a Methane Challenge partner.
- If your company plans to attend the Launch Event, provide the name, title, and contact information of the person who will be representing your company at the event and, if different, the contact information for the individual coordinating your company's participation at the event.
- Also, by March 23, please provide a link to your company's website as well as the specific way your company should be listed on the Methane Challenge Program website.
- Be sure to register for the GMF as soon as possible (<http://globalmethane.org/forum/>).

Please send the above information to myself and Elina Bouloubasis ([elina.bouloubasis@erg.com](mailto:elina.bouloubasis@erg.com)). Once we receive confirmation of your participation, we will provide more specific details about the launch event agenda, which will include recognition of each partner and individual and group photos. Please note that due to time constraints, we do not anticipate that partner companies will be able to give individual remarks at the event.

As a new Methane Challenge Program partner, there are a few next steps to be aware of. Within six months after joining the Program, each partner must develop an Implementation Plan to provide details on their planned participation, such as anticipated rate of progress, key milestones, and other relevant context. See the following Guidelines document for more information about how to develop an Implementation Plan:

[http://www3.epa.gov/gasstar/documents/MC\\_IP\\_Guidelines\\_Final.pdf](http://www3.epa.gov/gasstar/documents/MC_IP_Guidelines_Final.pdf).

We will also be working with partners as we develop the Program's reporting system, and will be seeking input and feedback in the coming months. Finally, in an effort to further highlight our partners' accomplishments, we aim to work with partners to develop "Fact Sheets" that cover notable historical actions taken in advance of the Methane Challenge Program in efforts to mitigate methane emissions.

We encourage you to attend the full GMF event that will offer high-level plenary sessions on cross-cutting issues such as project financing, joint Global Methane Initiative (GMI)-Climate & Clean Air Coalition (CCAC) discussions on projects and policy, and ample opportunities for networking with methane experts in the public and private sectors from around the world. A draft agenda is available at <http://globalmethane.org/forum/>. We hope you are able to attend and participate in the sessions.

Please feel free to contact me or Justin Pryor (202-343-9258 or [pryor.justin@epa.gov](mailto:pryor.justin@epa.gov)) with any questions you may have about the Methane Challenge Partnership. Please contact Elina Bouloubasis (703-373-0149 or [elina.bouloubasis@erg.com](mailto:elina.bouloubasis@erg.com)) with any questions about the launch event. Thank you again for your support of the Methane Challenge Program and we hope to see you at the launch event in Washington, D.C.

Sincerely,

Ms. Carey Bylin

U.S. Environmental Protection Agency

202-343-9669

[bylin.carey@epa.gov](mailto:bylin.carey@epa.gov)

---

Ms. Carey Bylin

International Programs Leader, Oil and Gas

Natural Gas STAR Program

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Mail Code 6207M, 1200 Pennsylvania Ave NW, Washington DC 20460



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**Cc:** Bylin, Carey[Bylin.Carey@epa.gov]; Anand Yegnan (Services - 6)[Anand.Yegnan@dom.com]  
**From:** Frank Mack (Services - 6)  
**Sent:** Wed 3/30/2016 3:10:07 PM  
**Subject:** RE: Dominion Transmission Inc. - Partnership Agreement for Methane Challenge & Other Information

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Ms. Carey Bylin

International Programs Leader, Oil and Gas

Natural Gas STAR Program

Global Methane Initiative

U.S. Environmental Protection Agency

Phone: +1-202-343-9669

Visiting Address & Private Deliveries (courier, FedEx etc.)

1201 Constitution Ave NW, Room Number 4353 UU, Washington DC 20004

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**Dominion will be represented by:**

Jeff Murphy

Title: Vice President and General Manager – Dominion East Ohio

Contact Information: [jeff.murphy@dom.com](mailto:jeff.murphy@dom.com)

Office: (216) 736-6376

Contact information for person coordinating the company's participation in Methane Challenge (as we have two separate partnership agreements with different company representatives):

Anand Yegnan

Manager – Environmental Regulations.

[Anand.yegnan@dom.com](mailto:Anand.yegnan@dom.com)

(804) 273-3893

Dominion website Link: [www.dom.com](http://www.dom.com)

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**Transmission Segment:** Dominion Transmission Inc.

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**Sent:** Wednesday, March 23, 2016 4:44 PM

**To:** 'Anand Yegnan (Services - 6)' <[Anand.Yegnan@dom.com](mailto:Anand.Yegnan@dom.com)>

**Cc:** 'Elina Bouloubasis' <[Elina.Bouloubasis@erg.com](mailto:Elina.Bouloubasis@erg.com)>; Pryor, Justin <[Pryor.Justin@epa.gov](mailto:Pryor.Justin@epa.gov)>

**Subject:** Methane Challenge

Hello Anand,

Good talking to you just now. I apologize that you did not receive our e-mail last week – attached below is the content for your reference.

As mentioned, please reply stating your intention to join as a founding partner and indicating anticipated timeframes for sending the signed Partnership Agreement(s) and remaining information, as per the message below.

We look forward to working with you on this!

On behalf of the U.S. Environmental Protection Agency (EPA), I am pleased to hear of your

interest in joining the Natural Gas STAR Methane Challenge Program as a founding partner. We will be officially launching this new program at the Global Methane Forum (GMF) at 10:00am on March 30, 2016 in Washington, D.C.

The launch event will be hosted by Janet McCabe, EPA's Acting Assistant Administrator for Air and Radiation. If you confirm your participation as a founding partner, we encourage you to attend this exciting event. We will recognize your company even if you are not able to participate in person. Please be aware of the following next steps:

- By March 23, please contact us (see contact information below) to confirm that you will be joining as a founding partner, and provide your signed Partnership Agreement.
- Provide us a short bio (approximately 75 words) describing your company, your commitments, and highlighting reasons for becoming a Methane Challenge partner.
- If your company plans to attend the Launch Event, provide the name, title, and contact information of the person who will be representing your company at the event and, if different, the contact information for the individual coordinating your company's participation at the event.
- Also, by March 23, please provide a link to your company's website as well as the specific way your company should be listed on the Methane Challenge Program website.
- Be sure to register for the GMF as soon as possible (<http://globalmethane.org/forum/>).

Please send the above information to myself and Elina Bouloubasis ([elina.bouloubasis@erg.com](mailto:elina.bouloubasis@erg.com)). Once we receive confirmation of your participation, we will provide more specific details about the launch event agenda, which will include recognition of each partner and individual and group photos. Please note that due to time constraints, we do not anticipate that partner companies will be able to give individual remarks at the event.

As a new Methane Challenge Program partner, there are a few next steps to be aware of. Within six months after joining the Program, each partner must develop an Implementation Plan to provide details on their planned participation, such as anticipated rate of progress, key milestones, and other relevant context. See the following Guidelines document for more information about how to develop an Implementation Plan:

[http://www3.epa.gov/gasstar/documents/MC\\_IP\\_Guidelines\\_Final.pdf](http://www3.epa.gov/gasstar/documents/MC_IP_Guidelines_Final.pdf).

We will also be working with partners as we develop the Program's reporting system, and will be seeking input and feedback in the coming months. Finally, in an effort to further highlight our partners' accomplishments, we aim to work with partners to develop "Fact Sheets" that cover notable historical actions taken in advance of the Methane Challenge Program in efforts to mitigate methane emissions.

We encourage you to attend the full GMF event that will offer high-level plenary sessions on cross-cutting issues such as project financing, joint Global Methane Initiative (GMI)-Climate & Clean Air Coalition (CCAC) discussions on projects and policy, and ample opportunities for networking with methane experts in the public and private sectors from around the world. A draft agenda is available at <http://globalmethane.org/forum/>. We hope you are able to attend and participate in the sessions.

Please feel free to contact me or Justin Pryor (202-343-9258 or [pryor.justin@epa.gov](mailto:pryor.justin@epa.gov)) with any questions you may have about the Methane Challenge Partnership. Please contact Elina Bouloubasis (703-373-0149 or [elina.bouloubasis@erg.com](mailto:elina.bouloubasis@erg.com)) with any questions about the launch event. Thank you again for your support of the Methane Challenge Program and we hope to see you at the launch event in Washington, D.C.

Sincerely,

Ms. Carey Bylin

U.S. Environmental Protection Agency

202-343-9669

[bylin.carey@epa.gov](mailto:bylin.carey@epa.gov)

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Ms. Carey Bylin

International Programs Leader, Oil and Gas

Natural Gas STAR Program

Global Methane Initiative

U.S. Environmental Protection Agency

Phone: +1-202-343-9669

Visiting Address & Private Deliveries (courier, FedEx etc.)

1201 Constitution Ave NW, Room Number 4353 UU, Washington DC 20004

U.S. Mail Address:

Mail Code 6207M, 1200 Pennsylvania Ave NW, Washington DC 20460



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**To:** Bylin, Carey[Bylin.Carey@epa.gov]  
**From:** Donatiello, Steven T.  
**Sent:** Tue 3/29/2016 4:47:24 PM  
**Subject:** FW: Final Logistics for EPA's Methane Challenge Launch Event

Please confirm receipt of my prior email.

Thanks

## Steve

Steve Donatiello, P.E.

Environmental Engineer III

Laclede Gas Company

Environmental Compliance

5th Floor

700 Market Street \*\*\*I have a new address.\*\*\*

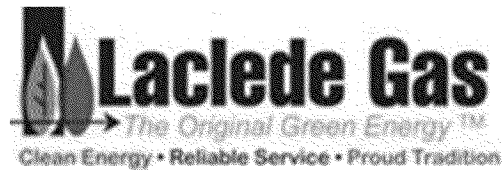
St. Louis, MO 63101

[steven.donatiello@TheLacledeGroup.com](mailto:steven.donatiello@TheLacledeGroup.com)

314-658-5541

314-307-5948 (cell) \*\*\*I have a new cell phone number.\*\*\*

314-535-9414 (fax)



**From:** Donatiello, Steven T.  
**Sent:** Tuesday, March 29, 2016 11:40 AM  
**To:** 'Bylin, Carey'  
**Cc:** Hoeferlin, Craig R.; Lauber, Mark D.; elina.bouloubasis@erg.com; Lacey, Pam; Piry-Haines, Michelle P. (Michelle.Piry@thelacledegroupp.com)  
**Subject:** RE: Final Logistics for EPA's Methane Challenge Launch Event  
**Importance:** High

Hi Carey,

Please revise as shown below.

## **The Laclede Group**— Craig Hoeferlin, Vice President of Operations Services

We believe in a world where energy enriches people's lives. Our mission is to make that idea a reality. Across the regions we serve, we at The Laclede Group dedicate ourselves to helping our 1.56 million residential, commercial and industrial customers across Missouri and Alabama to reach their personal and professional goals every day.

We are committed to upgrading pipelines across our regions to provide even safer and more reliable natural gas to our customers. Last year, we replaced 235 miles of pipeline, and plan to continue at this rate.

# **Steve**

Steve Donatiello, P.E.

Environmental Engineer III

Laclede Gas Company